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AUTHOR Quinn, Karen M.; And Others
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ABSTRACT

Designed to provide pre- and inservice vocational education administrators with the skills necessary to guide the development and improvement of instruction, this competency-based learning module consists of an introduction and three sequential learning experiences. Each learning experience contains an overview, required and optional learning activities, a self-check section, and a series of model answers for use with the self-check section. Topics covered in the first learning experience include the scope of the administrator's responsibility in developing and improving instruction, facilitating the conventional approach to instruction, assessing instruction, and facilitating the competency-based approach to instruction. Evaluating the performance of an administrator in a given case study in guiding staff in selecting and using a new instructional strategy and creating a climate for improving instruction are discussed. The final learning experience involves guiding the development and improvement of instruction in an actual administrative situation. (Related competency-based vocational education administrator modules covering program evaluation, curriculum development, program promotion, staff development, and student recruitment and admissions are available separately through ERIC--see note.) (MN)

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Leadership and Training Series No. 58B-8

GUIDE THE DEVELOPMENT AND IMPROVEMENT OF INSTRUCTION

COMPETENCY-BASED VOCATIONAL EDUCATION ADMINISTRATOR MODULE SERIES

Consortium for the Development of Professional
Materials for Vocational Education

Robert E. Norton, Consortium Program Director
James B. Hamilton, Consortium Associate Program Director
Karen M. Quinn, Program Associate
Lois G. Harrington, Program Associate
Audni Miller-Beach, Graduate Research Associate

The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

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FOREWORD

The need for competent administrators of vocational education has long been recognized. The rapid expansion of vocational education programs and increased student enrollments have resulted in a need for increasing numbers of vocational administrators at both the secondary and postsecondary levels. Preservice and inservice administrators need to be well prepared for the complex and unique skills required to successfully direct vocational programs.

The effective training of local administrators has been hampered by the limited knowledge of the competencies needed by local administrators and by the limited availability of competency-based materials specifically designed for the preparation of vocational administrators. In response to this pressing need, the Occupational and Adult Education Branch of the U.S. Office of Education, under provisions of part C--Research of the Vocational Education Amendments of 1968, funded the National Center for a scope of work entitled "Development of Competency-Based Instructional Materials for Local Administrators of Vocational Education" during the period 1975-77. That project had two major objectives:

1. To conduct research to identify and nationally verify the competencies considered important to local administrators of vocational education.
2. To develop and field test a series of prototypic competency-based instructional packages and a user's guide. One hundred sixty-six (166) high priority competencies were identified and six prototypic modules and a user's guide were developed, field tested, and revised.

While six modules had been developed, many more were needed to have competency-based materials that would address all the important competencies that had been identified and verified. In September 1978 several states joined with the National Center for Research in Vocational Education to form the Consortium for the Development of Professional Materials for Vocational Education. Those states were Illinois, Ohio, North Carolina, New York, and Pennsylvania. The first five states were joined by Florida and Texas later in the first year. The first objective of the Consortium was to develop and field test additional competency-based administrator modules of which this is one.

Several persons contributed to the successful development and field testing of this module on directing curriculum development. Karen M. Quinn, Program Associate, assumed the major

responsibility for reviewing the literature and for preparing the actual manuscript. Recognition also goes to the two consultants who helped conceptualize the module and prepared draft materials for the manuscript: Richard M. Outcalt, Head T & I Teacher Educator, University of Cincinnati, Cincinnati, Ohio; and Robert A. Nagle, Director of Vocational Education, Lehigh County AVTS, Schnecksville, Pennsylvania.

Acknowledgement is given to the two official reviewers who provided critiques of the module and suggestions for its improvement: Donald P. Altieri, Dean of Educational Development, Caldwell Community College, Hudson, North Carolina; and Robert D. Muzzi, Director of Vocational Education, Lackawanna County AVTS, Dunmore, Pennsylvania.

Credit goes to Glen E. Fardig, consultant, and Lois G. Harrington, Program Associate, who helped to refine the module for publication after field testing; and to Robert E. Norton, Consortium Program Director, for providing program leadership and content reviews. Thanks go to James B. Hamilton, Senior Research Specialist, for his helpful assistance; and to Ferman B. Moody, Associate Director for Personnel Development, for his administrative assistance.

Appreciation is also extended to Calvin Cotrell, James Haire, George Kosbab, Patricia Lindley, Helen Lipscomb, Aaron J. Miller, Dominic Mohamed, Robert Mullen, James Parker, Dale Post, Wayne Ramp, and Kenneth Swatt for their service as state representatives, state department contacts, and field-test coordinators; and to the other teacher educators and local administrators of vocational education who used the modules and provided valuable feedback and suggestions for their improvement. Last, but certainly not least, thanks and credit is due Deborah Linehan, Consortium Program Secretary, for her patience and expert skill in processing the many words necessary to make this module a quality document.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

INTRODUCTION

The goal of vocational education is to provide students with the knowledge, skills, and attitudes they need to become competent in their chosen occupations. It is the responsibility of vocational instructors to plan, organize, and deliver classroom/laboratory instruction that will help students develop the needed competencies. However, teachers can't do the job alone. Vocational administrators have a critical role in the development and continuing improvement of the instructional program. They must provide the leadership and create the climate in which the best instructional strategies, materials, and equipment are selected and properly used.

Everything the administrator does in one way or another is related to or impacts on the instructional program. Given the variety of administrative/management tasks to be accomplished, and the time and energy they consume, it is not surprising that administrators sometimes lose sight of the very real connection between what they are doing and the ultimate purpose of all these activities--the promotion of student learning through the development of a solid, effective instructional program. They may find it difficult to keep their priorities straight, concentrating too much time and energy on tasks more or less unrelated to the development or continuing improvement of the instructional program. The responsibilities that deserve close attention in developing and improving instructional programs include approving courses of study; guiding staff in selecting and using effective instructional strategies; coordinating local demonstration, pilot, and exemplary programs; approving the selection of instructional materials and equipment; and maintaining a learning resources center for students.

The distinction between curriculum development and instructional development is not a clear one. Curriculum development is often defined as determining what is to be taught, while instructional development is concerned with deciding how it is to be taught. The difficulty arises in deciding where curriculum development ends and instructional development begins, since the two processes are so closely interrelated. Another module in this series, entitled Direct Curriculum Development, is concerned with the what. It begins with occupational analysis and ends with a curriculum plan or course outline describing what is to be taught, with sequenced statements of the terminal performance objectives to be achieved. This module, Guide the Development and Improvement of Instruction, deals with the many instructional tasks that are involved in deciding how the curriculum plan or course outline will be transformed into actual instruction to be provided to students. Three other modules in this series deal

with the role of the administrator in providing a staff development program, observing and evaluating staff performance, and supervising personnel--tasks closely related to the improvement of instruction.

In many vocational programs, a "course of study" continues to be the overall, comprehensive, detailed plan that is developed to guide the instructional process. Increasingly, however, there is a move on the part of vocational educators to offer individualized, self-paced, competency-based programs in which modules or some other type of learning activity packages are used as the basis for instruction. A survey of administrators of some of these programs revealed that a course of study, as used in conventional programs, has no exact equivalent in a competency-based program. Instead, competency charts and instructional materials (modules or learning guides) serve the same purpose of defining the program.

In this module, the administrator's role in facilitating the development and improvement of courses of study is addressed first, since the majority of vocational programs in the United States still use this approach. The last part of the first information sheet addresses the role of the vocational administrator in instructional development in a competency-based education (CBE) program. In many ways the roles are similar, but the concepts involved and the nature of the materials developed are quite different. Today's vocational administrator needs to be conversant with both approaches in order to be well informed and professionally prepared to work effectively in a variety of educational settings.

This module is designed to help you clarify your role in the development and improvement of instruction and to give you the skills you need to fulfill your instructional leadership role effectively.

Module Structure and Use

This module contains an introduction and three sequential learning experiences. Overviews, which precede each learning experience, contain the objectives for each experience and a brief description of what the learning experience involves.

Objectives

Terminal Objective: While working in an actual administrative situation, guide the development and improvement of instruction. Your performance will be assessed by your resource person, using the "Administrator Performance Assessment Form," pp. 81-85. (Learning Experience III)

Enabling Objectives:

1. After completing the required reading, demonstrate knowledge of the administrator's role in guiding the development and improvement of instruction. (Learning Experience I)

2. After completing the required reading, critique the performance of an administrator in a given case study in guiding staff in selecting and using a new instructional strategy. (Learning Experience II)

Prerequisites

To complete this module, you must have competency in directing curriculum development. If you do not already have this competency, meet with your resource person to determine what method you will use to gain this skill. One option is to complete the information and practice activities in the following module:

- Direct Curriculum Development

Resources

A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references specific to your situation, and (3) to get assistance in setting up activities with peers or observations of skilled administrators.

Learning Experience I

Required

- TWO COURSES OF STUDY (one locally developed; one available through your state department of education, an instructional materials laboratory, or a university) that you can compare.
- ONE OR MORE COMPETENCY-BASED LEARNING PACKAGES whose format and characteristics you can describe.
- AN EXPERIENCED ADMINISTRATOR whom you can interview concerning the instructional development and improvement process at his/her institution.

Optional

- REFERENCE: Bentley, William H. Administering the Successful Vocational Program. West Nyack, NY: Parker Publishing Co., Inc., 1977.
- REFERENCE: Finch, Curtis R., and Crunkilton, John R. Curriculum Development in Vocational and Technical Education. Boston, MA: Allyn and Bacon, Inc., 1979.

Learning Experience II

Optional

- ONE OR MORE PEERS with whom you can plan for the installation of an instructional innovation.
- AN EXPERIENCED ADMINISTRATOR whom you can interview concerning his/her role in facilitating the improvement of instruction.

Learning Experience III

Required

- AN ACTUAL ADMINISTRATIVE SITUATION in which, as part of your duties, you can guide the development and improvement of instruction.
- A RESOURCE PERSON to assess your competency in guiding the development and improvement of instruction.

Selected Terms

Administrator--refers to a member of the secondary or postsecondary administrative team. This generic term, except where otherwise specified, refers to the community college president, vice-president, dean, or director; or to the secondary school principal, director, or superintendent.

Board--refers to the secondary or postsecondary educational governing body. Except where otherwise specified, the term "board" is used to refer to a board of education and/or a board of trustees.

Institution--refers to a secondary or postsecondary educational agency. Except where otherwise specified, this generic term is used to refer synonymously to secondary schools, secondary vocational schools, area vocational schools, community colleges, postsecondary vocational and technical schools, and trade schools.

Resource Person--refers to the professional educator who is directly responsible for guiding and helping you plan and carry out your professional development program.

Teacher/Instructor--these terms are used interchangeably to refer to the person who is teaching or instructing students in a secondary or postsecondary educational institution.

User's Guide

For information that is common to all modules, such as procedures for module use, organization of modules, and definitions of terms you should refer to the following supporting document:

> Guide to Using Competency-Based Vocational Education Administrator Materials. Columbus, OH: The Center for Vocational Education, The Ohio State University, 1977.

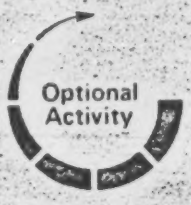
This module addresses task statement numbers 12, 29, 38, 47, 48, and 49 from Robert E. Norton et al., The Identification and National Verification of Competencies Important to Secondary and Post-Secondary Administrators of Vocational Education (Columbus, OH: The Center for Vocational Education, The Ohio State University, 1977). The 166 task statements in this document, which were verified as important, form the research base for the National Center's competency-based administrator module development.

Learning Experience I

OVERVIEW

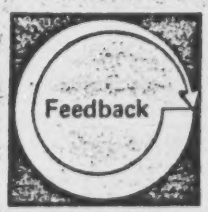
After completing the required reading, demonstrate knowledge of the administrator's role in guiding the development and improvement of instruction.

You will be reading the information sheet, "Guiding the Development and Improvement of Instruction," pp. 9-45.



You may wish to read one or more of the supplementary references, Bentley, Administering the Successful Vocational Education Program, pp. 101-110; and Finch and Crunkilton, Curriculum Development in Vocational and Technical Education, pp. 219-244.

You will be demonstrating knowledge of the administrator's role in guiding the development and improvement of instruction by completing the "Instructional Development Worksheet," pp. 47-52.



You will be evaluating your competency by comparing your completed "Instructional Development Worksheet" with the "Model Answers," pp. 53-55.

Activity

For information on the administrator's role in guiding the development and improvement of instruction in both traditional and competency-based vocational programs, read the following information sheet.

GUIDING THE DEVELOPMENT AND IMPROVEMENT OF INSTRUCTION

Rationale

Effective, relevant instruction is based on careful planning. As figures 1 and 2 illustrate, in both conventional vocational programs and competency-based programs, this planning should begin with locating or conducting the development of detailed occupational (task) analyses. Based on these analyses, course outlines or curriculum plans listing the terminal performance objectives to be achieved in each program or course can be developed.

At this point, plans can be made for how instruction will be provided to help students achieve those terminal objectives. In the conventional approach, the course objectives, instructional strategies, content, sequence, time allocations, and resources are identified and organized in the form of a course of study, which can then be used by teachers as a basis for planning units and lessons. Instructional development in the competency-based approach follows a very different pattern, which will be discussed later in this information sheet.

The Scope of the Administrator's Responsibility

Regardless of the instructional approach taken, the kind of individual responsibility you will have for the development and improvement of instruction will depend on the type, size, and administrative structure of your institution. For example, the director of vocational education in an area vocational school (joint vocational school, vocational/technical center, BOCES) in a large district will probably be functioning as part of an administrative/supervisory team, with instructional supervisors acting as curriculum consultants and working directly with teachers and instructors to help them plan and improve the instructional program. On the other hand, the local director in some instances (e.g., in smaller districts) is the local supervisor and, thus, has much more direct responsibility for providing teachers with specific help in developing courses of study or learning packages, selecting instructional materials, etc. The vocational director in a comprehensive high school may be acting as both "administrator" and "supervisor," depending

FIGURE 1

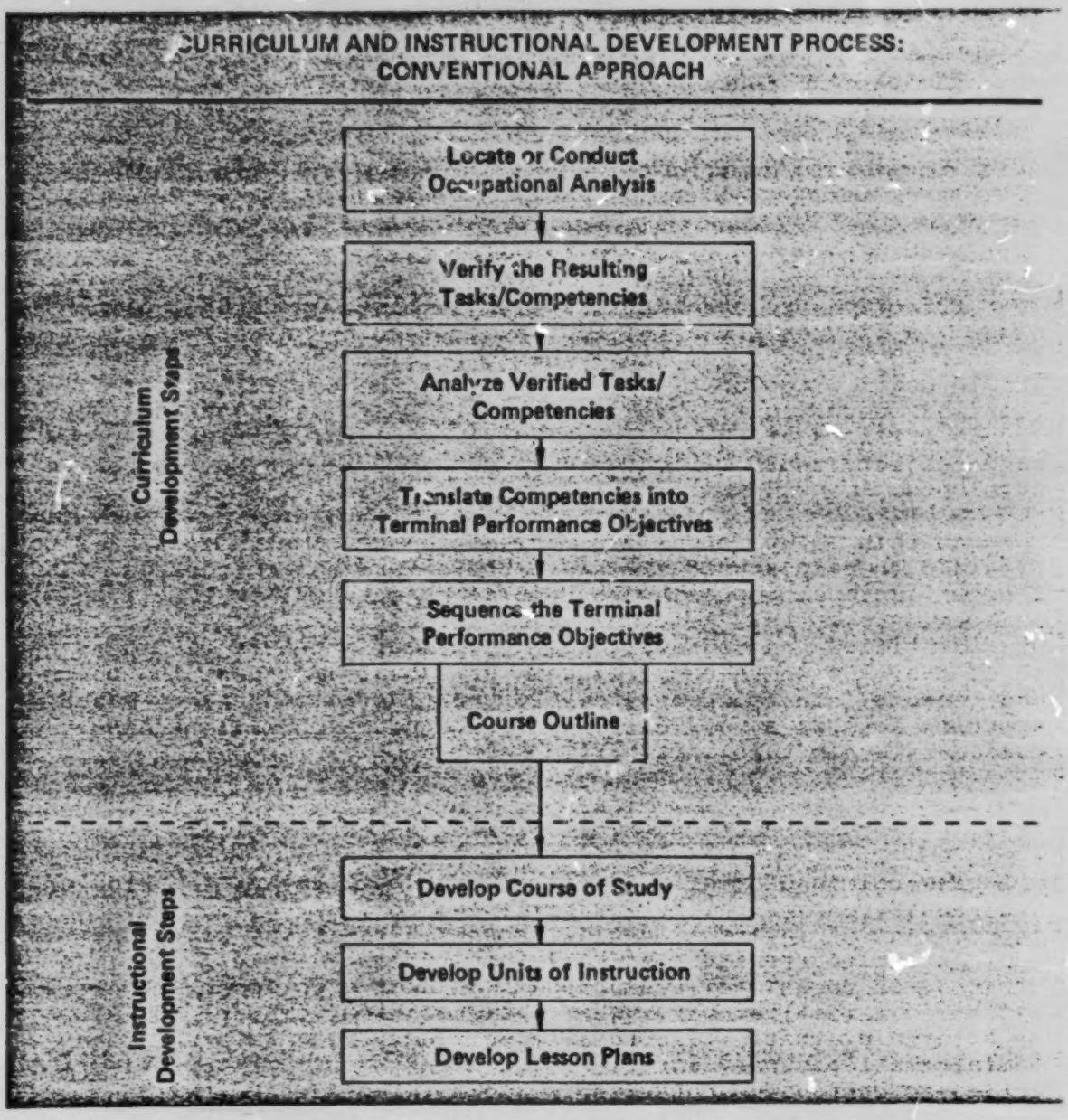
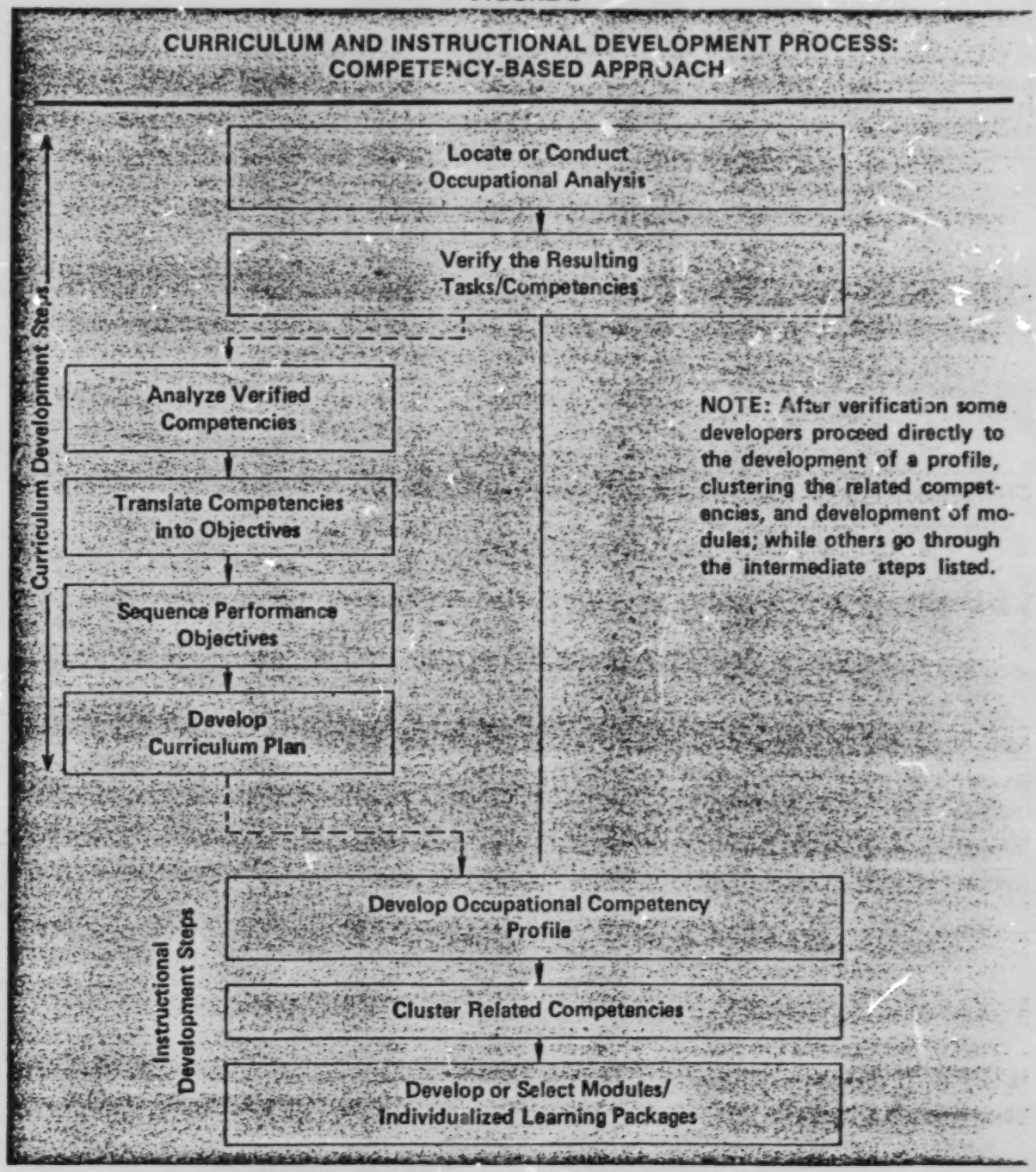

CURRICULUM AND INSTRUCTIONAL DEVELOPMENT PROCESS:
CONVENTIONAL APPROACH
Curriculum Development Steps
Locate or Conduct Occupational Analysis
Verify the Resulting Tasks/Competencies
Analyze Verified Tasks/ Competencies
Translate Competencies into Terminal Performance Objectives
Sequence the Terminal Performance Objectives
Course Outline
Instructional Development Steps
Develop Course of Study
Develop Units of Instruction
Develop Lesson Plans

FIGURE 2


CURRICULUM AND INSTRUCTIONAL DEVELOPMENT PROCESS:
COMPETENCY-BASED APPROACH
Curriculum Development Steps
Locate or Conduct Occupational Analysis
Verify the Resulting Tasks/Competencies
Analyze Verified Competencies
Translate Competencies into Objectives
Sequence Performance Objectives
Develop Curriculum Plan
NOTE: After verification some developers proceed directly to the development of a profile, clustering the related competencies, and development of modules; while others go through the intermediate steps listed.
Instructional Development Steps
Develop Occupational Competency Profile
Cluster Related Competencies
Develop or Select Modules/ Individualized Learning Packages

on the administrative structure of the school and the attitude of the school principal toward the vocational program. The associate dean of occupational education at a postsecondary institution will normally work with division/department chairpersons to develop, review, and improve the instructional program. Depending on the background and expertise of these persons, the administrator's role could range anywhere from serving as a liaison to keep lines of communication open among various personnel to direct consultant on such matters as how to implement a new instructional approach, develop program objectives, or select instructional materials.

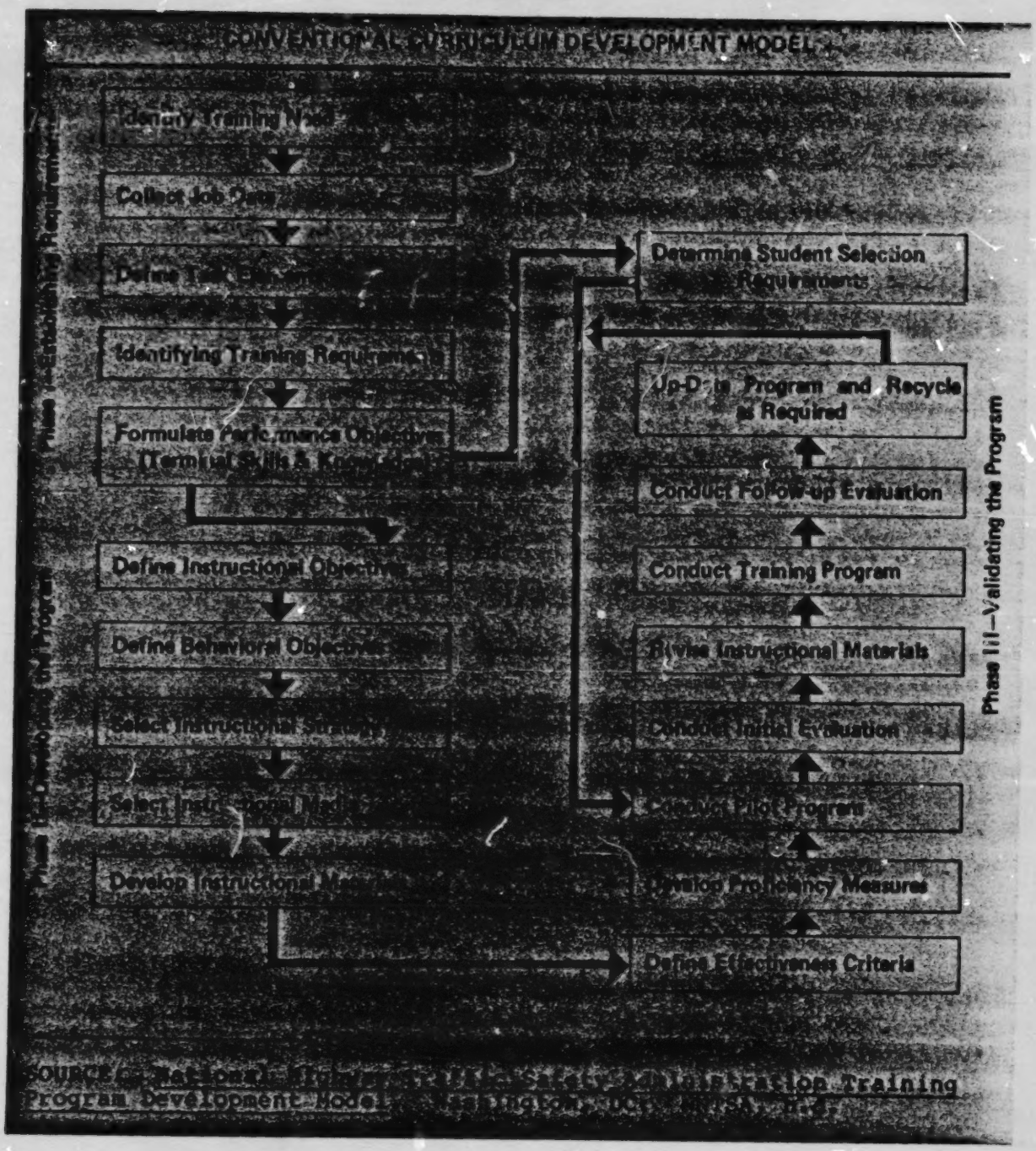
Although you cannot be expected to be an expert in all occupational areas or to take over the job of instructional development yourself, as an administrator you will have some responsibility for ensuring that each course or program is carefully planned and organized, and that the best instructional strategies, materials, and equipment are being selected and properly used. You need to be able to assess existing programs and provide whatever leadership and guidance is needed to facilitate their improvement. A model of a comprehensive curriculum development process, in which the administrator will need to be involved at appropriate intervals, is shown in figure 3.

Facilitating the Conventional Approach to Instruction

Written Courses of Study

A carefully organized, detailed course of study will be the foundation for nearly everything that goes on in the conventional vocational program or course. It is the basic planning guide from which all the other instructional plans are drawn. Teachers and instructors will use it as a base on which to build units of instruction, classroom lessons, project assignments, examinations, and so forth. If the course of study is thorough and up-to-date, it will serve as a reference when administrative decisions about the program need to be made. Both the teacher and administrator will consult the course of study as they order new equipment or select instructional materials and supplies. To make a decision about the amount of credit to be awarded to students for completion of the program or course, the course of study and its time allocations will be consulted. When a school is being evaluated for accreditation, the visiting committee will usually examine the course of study and note its relationship to the program facility and the student learning activities. As a new school building is being planned, courses of study are used as one basis for writing the educational specifications.

FIGURE 3


CONVENTIONAL CURRICULUM DEVELOPMENT MODEL
Identify Training Need
Collect Job Data
Define Task Elements
Identifying Training Requirements
Formulate Performance Objectives (Terminal Skills & Knowledge)
Define Instructional Objectives
Define Behavioral Objectives
Select Instructional Strategy
Select Instructional Media
Develop Instructional Materials
Determine Student Selection Requirements
Up-Date Program and Recycle as Required
Conduct Follow-up Evaluation
Conduct Training Program
Revise Instructional Materials
Conduct Initial Evaluation
Conduct Pilot Program
Develop Proficiency Measures
Define Effectiveness Criteria
Phase III—Validating the Program

A good course of study communicates to all concerned--teachers, instructors, administrators, supervisors, students, parents, employers, and others--what the goals, objectives, and expected outcomes of the program are, and how these will be achieved. If a systematic approach to developing the total vocational program is taken, each course of study will serve as a means of articulation among the various courses and programs offered.

As the official document that describes the scope and substance of a conventional vocational program, the course of study is subject to approval by the school administration. A typical task performed by vocational administrators is approving the written course of study for each program or course. This may appear to be a deceptively simple management task. Courses of study are generally developed by subject-matter experts (usually teachers, instructors, or curriculum specialists), not by administrators. Thus, we can envision the administrator in his/her office. A course of study for, let us say, the school's two-year program in refrigeration, air conditioning, and heating has magically appeared on the desk. The administrator looks it over, nods approvingly, and signs off on it.

In reality, of course, the administrator's responsibility goes far beyond "approving" that course of study. The careful planning process described earlier is not a given in any educational institution. The development of detailed, relevant, up-to-date courses of study--which can in fact be used by teachers and administrators as guides in developing the instructional program--will depend heavily on the kind of leadership and guidance provided by administrators. They must encourage faculty to participate in curriculum study, development, and revision, and to prepare and use detailed courses of study. They must provide the structure within which this can happen and ensure that all those involved have the resources, information, and technical assistance needed to do the job.

Assessing the Situation

Unless you are starting with a new school and new programs, you need to remember that a "curriculum" already exists at your school. Instruction is taking place in each course or program; instructional strategies are being employed; materials and equipment are in use. In other words, "courses of study" are being offered. Whether these exist in organized written form and are in fact being used in preparing students for employment may be another question.

You cannot assume that every teacher or instructor will be at the same point in the instructional development effort. Some

may have had background and training in instructional planning, execution, and evaluation; others may be among the few who seem "born to teach." These persons may already be providing carefully organized, effective instruction or may need only minimal help in planning their courses. On the other hand, many vocational instructors are recruited directly from industry and have been out of school for a long time. Although they are skilled in the occupation, they may have little or no background in how to plan and organize instruction or how to actually teach others the skills they possess. Even for experienced teachers, the task of writing down what they have been doing in a clear, organized way may be one they approach with dread, or avoid altogether.

There are several questions you can ask to help you assess the situation and determine what improvements, if any, need to be made.[1] Each of these questions has implications for your role as an administrator in facilitating the development of sound plans.

Is there a written curriculum document or course of study available for each course or program, and is it being used? The answer to this question will often depend on how much importance the institution (the board of education or trustees, superintendent, dean, administrative staff, supervisors) attaches to curriculum development, in general, and the course of study, in particular. Are staff members encouraged to locate, adapt, and/or develop detailed courses of study to guide their efforts? Are they given the support and resources they need to do the job? Is there an established curriculum development procedure within which the various courses of study are systematically developed, reviewed, and revised? Are these written plans taken seriously, or do they wind up on the shelf unused? As stated earlier, the situation may well vary from teacher to teacher or from program to program.

Who developed the course of study? Knowing the source can give you some clues about the quality and usability of the existing documents. Curriculum guides/courses of study are available from a variety of outside sources, or they can be locally developed.

Sometimes guides are developed by curriculum specialists in the state department of education and furnished to the schools

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1. These questions were adapted from Darrell L. Parks, "Supervision of Curriculum Development," in Lloyd W. Dull (ed. and comp.), Improving Supervision in Vocational Education (Columbus, OH: Ohio Department of Education, Division of Vocational Education, 1978), p. x-6.

and colleges. They may be available from a university-based curriculum development laboratory. These model courses of study can be of great help to both new and experienced instructors. However, it is generally true that such materials should not be used without modifying them to reflect the needs of your institution, your students and faculty, and your community. Even in the same educational system, there may be legitimate reasons for two institutions having different courses of study for two programs that are supposedly the same. Physical differences between the two laboratories, the kinds of students who enroll in each program, the linkages with job placements that have historically prevailed, and, perhaps, differing goals for each program--these are some of the factors that would affect the appropriateness of such documents to a particular institution or program. Another consideration is that, unless the material you get from outside sources was recently developed, it may not be completely current and will need to be revised locally.

In smaller school systems, or in independent technical institutions, it is not unusual for an individual teacher to be given sole responsibility for the whole job. The quality of a course of study developed by teachers working on an individual basis will depend not only on the expertise of the teachers, but on the resources, information, and technical assistance they had available in completing the task. For example, providing articulation between programs, with the total program, and with other locally available training programs could be a problem for a teacher who is working alone. A teacher may sometimes take over an existing program, with a course of study prepared by a previous teacher. In this case, the course of study may be out of date or otherwise in need of revision and enrichment.

Often, the local school system or institution takes responsibility for course-of-study development, involving individual teachers as members of a curriculum development team or committee. Courses of study developed in this way stand a better chance of being high-quality, usable documents. If sound procedures are used, the team approach lends itself to systematic planning for the total vocational program and articulation between programs and levels of training. No one member of the team needs to be an expert in all areas. Roles and responsibilities can be defined according to the strengths of individual members. Everyone has the benefit of the wide range of information, resources, and technical expertise brought by individual members to the development effort.

Ideally, the team approach will produce the best results. However, courses of study developed in this way will only be as good as the team involved, the procedures used, and the resources available to the developers. This reinforces the importance of the leadership provided by the administration--the presence or

absence of the guidance, support, and commitment of key decision-makers in the institution.

Whatever the source of the course of study, however, there are several other questions you should ask in order to assess its overall adequacy.

How was the course content determined? There are several methods the program developers could have used to identify the skills, knowledge, and attitudes to be taught in the course or program. A new occupational analysis may have been developed, or existing task analyses (e.g., from the state department) may have been located and used. Previously developed courses of study or curriculum guides may have provided the content. Textbooks, reference books, and manuals in the occupational area, which are often organized around tasks, could have been used. Technical periodical literature or government documents could also have been the source of occupational task lists or descriptions of new jobs and skills being used in the field.

Whatever their source, it is essential that the skills to be covered have been verified as, in fact, performed by workers on the job and as critical to job success. If the content was derived from a previously developed course of study or other reference such as a textbook, this verification may well be lacking. These materials may have limitations as a source of course content in that they probably do not include the most up-to-date information available.

In addition, in selecting the skills to be included, articulation (e.g., is the skill already covered at another level?), time (how much can be included?), and learning theory (how much should be included?) should be considered. Some teachers tend to emphasize their areas of strength or special interests, downplaying other areas. A key question to ask is whether an occupational craft committee or advisory committee was involved in determining course content, and whether its input was taken into account.

When was the course of study last updated and/or modified? Who was involved in the updating and revision process? Changes in technology, in the local employment situation, in program goals and student needs; revised licensure requirements; and promising new developments in instructional strategies and materials--these and other factors make it essential that the instructional program be continuously reviewed and revised as necessary. It is the job of the administrator to gather a variety of data on how well the instructional program is preparing students for employment and what training gaps exist, and to make this information available to those involved in curriculum development. If this has not been done and a course of study

has been in use for some time without modification, it may well be out of date or no longer responsive to the local situation. If changes have been made, the same questions (who made the changes; how was any new content determined?) need to be asked.

Does the course of study include the necessary information, and has this information been organized into an acceptable format? Courses of study can come in a variety of sizes, shapes, and formats, and there is general disagreement concerning what and how much should be included. Each service/occupational area tends to organize its course of study to suit best its own ways of presenting instruction. For example, a course of study for a program of both cooperative education and related instruction will require a different format and degree of detail than a program in which all skills are to be learned in the laboratory. Various service areas, school districts, educational institutions, and/or state departments will make decisions or recommendations about how much detail is needed in a course of study, what information should be supplied, and what should be left to the planning of the individual instructor. A school district may develop its own common format, to be used throughout the system, and provide guidelines, in the form of course planning manuals or handbooks, to assist developers in producing acceptable courses of study.

Generally speaking, a course of study deals in broad outlines, leaving the detailed instructional planning to the unit and lesson plan levels. A well-developed course of study should usually include the following components:

- Course description (general goals and purposes of the course)
- Overall instructional stategies (e.g., project method)
- Course objectives
- Course content/outline, sequenced
- Time allocations
- Resources (references, equipment, tools, supplies, facilities)

In some states, a course of study is more broadly defined to include such areas as specific learning and evaluation activities.

An example of one format that could be used is shown in sample 1.

Does the course of study clearly specify the instructional objectives (learning outcomes) to be achieved? Clearly defined

SAMPLE 1

COURSE OF STUDY FORMAT

Course Title:

I. Course Description; Overall Program Strategies

II. Course Objectives

1.
2.
3.

III. Course Content or Competency Areas

Major Instructional Areas
1. Orientation and Guidance
2. _____
3. _____
4. _____
5. _____

IV. Time Allocations*

Instructional Areas/Units	Time Allocations by Class Hours
1. Orientation and Guidance	
a. Types of job opportunities available in community	4
b. _____	-
c. _____	-

SOURCE: Taken from Module A-8, Develop a Course of Study, part of the Professional Teacher Education Module Series produced by the National Center for Research in Vocational Education (Athens, GA: American Association for Vocational Instructional Materials, 1978).

*This section may also have the time allocations broken down year by year: freshman level, sophomore level, junior level, senior level; or year I, year II, etc.

V. Selected References and Audiovisual Materials

Books
1.
2.
--

Periodicals
1.
2.
--

Films
1.
2.
--

Filmstrips/Slides
1.
2.
--

VI. Tools, Equipment, Supplies, and Facilities

Tools
1.
--

Equipment
1.
--

Supplies
1.
--

Facility Requirements
Classroom:

Laboratory:

Storage:

Course of Study Prepared by: _____
Date Prepared: _____
Date Reviewed by Advisory Committee: _____

course objectives provide a basis for evaluating the student and the course, and guide the teacher in planning specific classroom/laboratory activities and selecting materials and methods. There is disagreement concerning exactly what form course-of-study objectives should take and how specific they should be. However, it is agreed that the course of study should indicate, at least in a general way, what the student will be expected to do after completing the course, and that the objectives should be drawn from the skills selected for inclusion in the course/program. Even experienced curriculum developers sometimes have trouble formulating clear instructional objectives. If the course objectives are fuzzy, off target, or missing altogether, the educational logic of the whole document should be questioned. Course planning manuals or handbooks can provide information on how to identify and state course objectives that clearly communicate expected outcomes.

Does the course of study identify the instructional program strategies that will be employed? A good course of study should identify the basic approach(es) to be taken in helping students achieve the course objectives. The strategy or strategies used must, of course, reflect the goals and philosophy of the institution and must take into consideration (1) the available facilities, equipment, and materials; (2) the number of students involved; (3) the degree of support of local business and industry; and other factors. Will the program be highly individualized? Will it rely heavily on media and audiovisual aids or computer-assisted instruction? How production- or job-oriented will the program be? Will the skills to be learned be acquired through a combination of task-oriented instruction, related instruction, and core courses (e.g., English and math), or will some other approach be used (e.g., cooperative education)? Obviously, decisions made concerning these strategies will directly affect the kinds and amounts of materials, equipment, and other resources that will be needed.

The point at which program strategies are identified is critical in terms of the improvement of the instructional program. The kind of instructional leadership provided by the school administration will have a real impact here. Is the administration aware of strategies, materials, and techniques showing promising results in other settings? Are teachers encouraged to explore innovative approaches (e.g., methods of providing for the needs of students with varying abilities)? Are they given the resources, training, and support they need to do so?

It is important to create a climate for change and improvement. At this point, we need to stress again that, although administrators do not actually write courses of study, the importance they place on the improvement of the teaching/learning process will be reflected in these plans.

Have the scope, sequence, and time allocations of the content or competency areas been determined such that all students have an opportunity to complete the learning experiences under a closely supervised and guided plan? The course of study should not include more tasks or instructional content than can reasonably be learned by students during each unit or the course as a whole. In addition, the content should be arranged in the most appropriate order for effective learning--that is, in a sequence that makes educational sense and is likely to maintain student motivation. For example, as much as possible, simple tasks and principles should precede more difficult or complex ones. The amount of instructional time to be devoted to each topic, task, or unit should be realistic. The whole course should be arranged so that every student is actively engaged in a planned learning activity at all times, with the teacher available to students when needed.

If the course of study was developed by a beginning teacher or a teacher working alone without the aid of consultants or members of the advisory committee, the teacher may have overlooked some of the factors and principles that need to be considered in arriving at the scope, sequence, and time allocations of the course.

Have the major resources (e.g., facilities, references, equipment, tools) needed to conduct the course been identified? The course of study ought to specify the major resources needed to meet the course objectives. In identifying these items, the developers should have first referred to the tasks/content to be included in the course and the course objectives. If carefully determined and clearly stated, these will have direct implications for the resources needed. For example, if the students in an automotive mechanics program are to "maintain and repair automotive fuel systems," there are certain tools, equipment, and materials they must have to perform the various tasks and operations involved. If course content was derived from a detailed occupational (task) analysis, many of the items needed will have been identified in that analysis.

Other sources could have been tapped to identify the resources needed or to supplement information provided through an occupational analysis. Core courses of study and curriculum guides produced by the state department, publishers' catalogs, suppliers' catalogs, textbooks, facilities guides from the state department, or other references on facilities planning--such sources can provide useful suggestions. If the course of study was developed by instructors, they may have relied heavily on their own occupational experience, or they may have been able to consult with supervisors, persons from business and industry, and/or members of an advisory or craft committee. Obviously, the

adequacy and appropriateness of the resources identified will depend on how accurate and up-to-date the sources were.

The final selection of resources, however, must take other factors into consideration. The items identified through occupational analyses or in existing documents may not be appropriate in terms of the instructional strategies to be employed, or feasible in terms of available funds and facilities at your institution. For example, a task to be learned may involve operating a calculator, but this equipment will not be needed if students are to learn the skill in a local business through a cooperative education program. If funds are limited, this will limit the choices open to the instructor in planning how to provide instruction. The quantity of items and the amount of facility space needed will, of course, also depend heavily on the number of students to be enrolled and the length of the course/program offering.

There are other criteria that the items selected should meet. For example, written materials should be appropriate for the reading level of the students for whom the course is designed, and equipment should have built-in safety features. Many educational institutions have developed written policies and criteria to guide teachers, supervisors, and administrators in selecting instructional resources. If such guidelines have not been developed, the resources selected may need to be carefully reviewed for various features that the developer(s) may not have taken into consideration.

As with the identification of program strategies, decisions concerning materials, equipment, and other resources have direct implications for program improvement.

What is happening to program completers? The real test of the adequacy of a course of study is, of course, its results in terms of students who have completed the training. Are they being employed in the occupational cluster for which they received training? Are they satisfied with their employment and advancing up the occupational ladder? Are their employers satisfied with their performance?

If a sound instructional development procedure has been established--within which the various courses of study are systematically developed, reviewed, and updated--it is more than likely that a good course of study has been developed and that the program is preparing students adequately for employment. As indicated earlier, as part of this procedure the administrator must monitor changing employment needs, gather data on how well the program is doing (e.g., through community surveys and student follow-up studies), become aware of promising new strategies and materials, and make this information available for curriculum and

instructional development or revision. If such data have not been gathered and used, you may well find that an existing course of study is not meeting the needs of students or employers.

The preceding discussion has clear implications for (1) the kinds of conditions that must exist within the institution if adequate courses of study are to be developed, and (2) your responsibilities in facilitating the process. The following suggestions highlight some of these conditions and responsibilities:[2]

- The board and administrative staff members must be committed to the idea that courses of study are important and needed to ensure a well-structured and sequentially planned educational program. They should demonstrate support by providing all the resources required to develop courses of study on a continuing basis. Such support assures teachers that their efforts are not in vain, and that there is a plan for attaining instructional objectives.
- The roles and responsibilities for course-of-study development must be clearly understood. Persons serving on curriculum committees should have well-defined areas of responsibility, such as organizing and chairing committees, determining format, writing, setting deadlines, editing, and printing. The approval of appropriate administrators, the board, or others in positions of authority must also be obtained.
- The degree of teacher involvement will be determined by the individual school district or institution. However, teachers and instructors should always be directly involved in the development of courses of study. They need to have a feeling of ownership in the process if they are expected to use the material in a meaningful way.
- There must be a clear understanding about how courses of study are to be written. They must be concise, detailed without being lengthy, and written so that teachers' creativity and flexibility are encouraged.
- Course-of-study developers and users should understand that instructional objectives are the heart of any written document that outlines what is to be taught. The objectives should be clear, concise, and written so that the reader will know what educational outcomes are expected.
- School district/institutional policy should provide for the review and revision of courses of study on a regular

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2. Adapted from Parks, p. x-6.

basis. Because the course of study represents what is taught, any modifications should reflect the current program.

- The school district/institution should have some type of procedure to ensure that courses of study are being used. If teachers or instructors were involved in developing the material and a thorough job has been done, they are more likely to take these plans seriously. One way to ensure that courses of study are used is to provide assistance--in staff development programs--in implementing the various instructional strategies called for in the plans and using the instructional materials and media selected. In fact, administrators should insist on consulting the appropriate courses of study whenever program decisions are made.
- If courses of study are valid and current, instructors, administrators, deans, and supervisors should rely on them as an aid in the selection of instructional materials and equipment.

Whether you are working with teachers directly to help them develop a course of study, or indirectly through supervisory staff or a curriculum-and-instruction development team, you need to ensure that the necessary information and resources are available. Specifically, you should do the following:

- Explain the philosophy and goals of the school to staff and ensure that these are reflected in each course of study.
- Provide up-to-date information on job needs and demands and on the success of program graduates.
- Provide (or assist staff in locating) up-to-date task analyses to be used in developing course outlines.
- Provide information on available funds and facilities to ensure that plans are realistic.
- Ensure that teachers have the assistance they need by providing access to advisory committee members, curriculum specialists, supervisors, and experienced teachers as appropriate and necessary.
- Assist staff in determining an appropriate format and level of detail for courses of study and/or provide sample formats.
- As needed, provide or ensure the availability of model courses of study/curriculum guides.
- As needed, provide or ensure the availability of course planning manuals or handbooks on course-of-study development that are appropriate to your institution.

- Encourage the use of promising new approaches and materials and their incorporation into the course of study. Provide guidelines for the selection of instructional resources.

Facilitating the Competency-Based Approach to Instruction

Assessing the Situation

As indicated in the Introduction, many vocational educators are recognizing the potential of competency-based programs and materials for the improvement of instruction. Although your responsibilities in a competency-based program will be similar to those in a more conventional program, the competency-based approach involves some very different concepts and emphases, which affect the way instruction is planned, organized, and delivered. These differences have direct implications for the type of support and guidance you will need to give staff to facilitate their instructional efforts. The following questions focus on these differences and can help you determine what steps need to be taken to install a new competency-based education (CBE) program or improve an existing one. Figure 4 depicts a typical CBE program development model that incorporates the process discussed here.

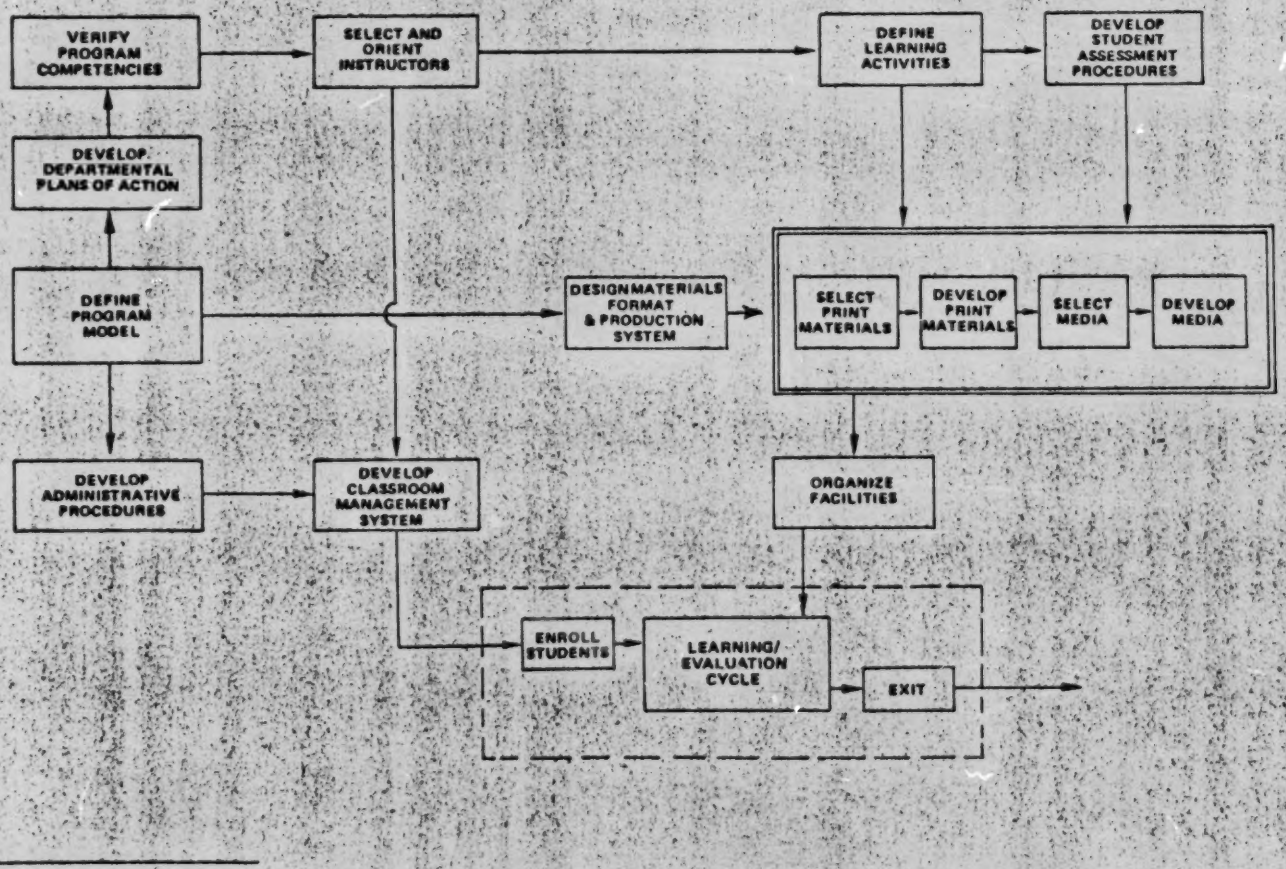
Does a written occupational competency profile (list of verified competencies) exist for each instructional program (or course)? The first essential characteristic of a CBE program is that the competencies to be achieved by students have been (1) carefully identified, (2) verified by local practitioners, and (3) made public in advance. These competencies should represent those tasks actually performed by workers on the job and essential to the occupation.

As indicated in figures 1 and 2, any vocational program--whether conventional, competency-based, or some combination of approaches--should be based on a careful analysis of the occupation to identify the skills, knowledge, and attitudes needed by workers in that occupation. The difference in programs lies in emphasis and in the way the instructional system is designed to help students achieve the specified competencies. Competency-based programs focus directly on the development and assessment of competence, as follows:

1. Competencies to be achieved are carefully identified, verified, and made public in advance.

FIGURE 4

PROGRAM DEVELOPMENT MODEL FOR COMPETENCY-BASED EDUCATION



SOURCE: Glen E. Fardig, University of Central Florida, Orlando, Florida, 1979.

2. Criteria for assessing each of the verified competencies have been derived from an analysis of the competencies, explicitly stated, and made public.

3. The instructional program provides for the individual development and assessment of each competency.

4. Assessment of the students' competency takes knowledge and attitudes into account, but requires actual performance of the competency as the primary source of evidence.

5. Students progress through the program, ideally at their own rate, by demonstrating their competence.

Thus, the foundation on which any CBE program is built is made up of the explicit, action- and performance-oriented statements of the competencies to be achieved. These should be written down, either in list form or in the form of a profile chart, which you as an administrator can review and approve. A sample profile chart (this one from the field of resources planning) is shown in sample 2. The graphic form makes it easy to comprehend the nature of the program as a whole and to examine specific areas within it.

A competency profile is, in a sense, the "official document" describing the nature and scope of the program. In addition, it is used to help the students plan their programs. Working with an instructor on an individual basis, students may review the list and determine that they are already proficient in one or more of the required competencies listed. Some competencies may be designated as elective or optional, to be selected according to the student's individual needs and occupational plans.

A profile chart can also be designed to serve as a record-keeping device to monitor and record student progress and completion of competencies (see sample 3). Some institutions issue an official copy of the profile chart as a "Record of Achievement" to students completing the requirements (see sample 2). This takes the place of or supplements the traditional diploma, which signifies completion of course work (or attendance) without indicating exactly what the student can and cannot do.

Have the competencies (task statements) been clustered into appropriate related and logical groupings that can serve as a basis for developing materials and selecting instructional methods? There is considerable disagreement among educators over whether this step is necessary or even desirable. Many contend that each competency, if important enough to be listed separately, should stand alone and be given separate treatment in developing materials and selecting instructional methods. Many others cluster related competencies in order to (1) reduce the

SAMPLE 2

RECORD OF ACHIEVEMENT

_____

attended a training program in

_____

for a period of _____ months ending _____

and was successful in achieving the occupational profile of

_____

REGISTRAR

PRESIDENT

SELF TRAINING AND EVALUATION PROCESS

holland college

SOURCE: Form used by Holland College, Charlottetown, Prince Edward Island, Canada.

RESOURCES PLANNING

Name _____

C	CAN PERFORM THIS SKILL WITHOUT SUPERVISION OR ASSISTANCE AND CAN LEAD OTHERS IN PERFORMING IT.
4 • A	CAN PERFORM THIS SKILL WITHOUT SUPERVISION OR ASSISTANCE WITH INITIATIVE AND ADAPTABILITY TO SPECIAL PROBLEM SITUATIONS. CAN PERFORM THIS SKILL WITHOUT SUPERVISION OR ASSISTANCE WITH PROFICIENCY IN SPEED AND QUALITY.
3	CAN PERFORM THIS SKILL SATISFACTORILY WITHOUT ASSISTANCE AND/OR SUPERVISION
2	CAN PERFORM THIS SKILL SATISFACTORILY BUT REQUIRES PERIODIC SUPERVISION AND/OR ASSISTANCE
1	CAN PERFORM SOME PARTS OF THE SKILL SATISFACTORILY, BUT REQUIRES INSTRUCTION AND SUPERVISION TO PERFORM THE ENTIRE SKILL.
0	HAS SOME KNOWLEDGE AND LIMITED EXPERIENCE, BUT NOT SUFFICIENT FOR PARTICIPATION IN A WORK ENVIRONMENT.

Ratings on the chart are based on industrial performance standards. They are confirmed by an instructor (a skilled and experienced person from the occupation) who views and evaluates performance as he would in the role of an employer or supervisor.

Instructor _____

Date _____

A skill profile showing the individual's attendance punctuality and work habits is available from the Registrar's office.

APPLY EXISTING LEGISLATION RELATED TO PLANNING	INTERPRET AND APPLY ENVIRONMENTAL LEGISLATION	INTERPRET AND APPLY NATURAL RESOURCE LEGISLATION	PROCESS SUBDIVISION APPLICATIONS FOR APPROVAL	PROCESS APPLICATIONS FOR AMMENDMENTS TO ZONING BY-LAWS	APPLY REQUIREMENTS OF SUBDIVISION REGULATIONS TO SITE DESIGN	ESTABLISH OWNERSHIP OF PROPERTIES	EXPLAIN AND ASSIST IN BY-LAW ADVERTISING PROCEDURES
GATHER AND COMPILE INFORMATION	IDENTIFY SPACIAL DIMENSIONS AND RELATIONSHIPS OF COMMUNITIES	DELINEATE WATERSHED USING MAPS AND AIR PHOTOGRAPHY	EVALUATE MAP CONSTRUCTION TECHNIQUES	READ AND INTERPRET TOPOGRAPHIC MAPS	READ AND EXTRACT INFORMATION FROM CIVIL ENGINEERING DRAWINGS	COMPILE ENVIRONMENTAL INVENTORY	CONDUCT LAND USE SURVEYS
ANALYZE AND REPORT DATA	OPERATE DESK CALCULATORS	PREPARE FACTOR MAPS	DEVELOP DATA TABLES	GROUP DATA INTO FREQUENCY DISTRIBUTIONS	VERIFY ORIGIN AND ACCURACY OF AVAILABLE DATA AND REPORTS	PREPARE SIMPLE ANALYTICAL REPORTS	CONDUCT "DELPHI" ANALYSIS
PREPARE GRAPHIC PRESENTATIONS	OPERATE PROJECTORS AND OTHER EQUIPMENT FOR PRESENTATIONS	SELECT METHODS AND MEDIA FOR PRESENTATIONS	APPLY LETTERING AND DRAFTING AIDS	USE AND MAINTAIN BASIC DRAFTING EQUIPMENT	HAND LETTER LEGIBLY	APPLY CARTOGRAPHIC DRAFTING TECHNIQUES	LAYOUT PROPORTIONS OF MAPS AND PRESENTATIONS
PREPARE MAPS	MAKE LINEAR MEASUREMENTS ON MAPS USING SCALES	CONSTRUCT LINEAR SCALES AND CONVERT TO RATIO SCALES	PREPARE COVER MAPS	ENLARGE AND REDUCE MAPS PHOTOGRAPHICALLY	MEASURE AREAS ON MAPS USING PLANIMETERS	PREPARE BASE MAPS	PREPARE LAND USE MAPS
CONDUCT ON SITE INSPECTION AND SUPERVISION	INTERPRET LOCATION MAPS AND IDENTIFY PHYSICAL SITE	ESTABLISH LEVEL LINE	CALCULATE SLOPE AND GRADIENT ON GROUND	ESTABLISH AND CHECK GRADES	CONDUCT TRANSIT-TAPE SURVEYS	PREPARE SITE INSPECTION REPORTS	IDENTIFY AND RECOMMEND RETENTION OF BIOLOGICAL AND PHYSICAL FEATURES
CARRY OUT PHYSICAL SITE DESIGN	IDENTIFY PHYSICAL SITE FEATURES TO BE INCLUDED IN DESIGN	PLAN ACCESS TO RECREATION AREAS AND OTHER RESOURCES	ANALYZE AND ESTABLISH EFFECTIVENESS OF EXISTING UTILITIES	ANALYZE AND ESTABLISH EFFECTIVENESS OF EXISTING PUBLIC SERVICES	ANALYZE AND ESTABLISH EFFECTIVENESS OF EXISTING STREET PATTERNS	DEVELOP PRELIMINARY DRAINAGE PLAN	DETERMINE FEASIBILITY OF PROVIDING SERVICES AND UTILITIES
IDENTIFY RESOURCE USE CONFLICTS AND PROBLEMS	DETERMINE POTENTIAL EFFECTS OF URBAN GROWTH	DETERMINE DESIRABILITY OF RESOURCE DEVELOPMENT	PRESENT ALTERNATE COURSES OF ACTION AND RECOGNIZE TRADE OFFS	RELATE SOCIO ECONOMIC CHARACTERISTICS TO LAND USE CHANGE	CONDUCT INVENTORY TO DETERMINE EXTENT OF RESOURCE USE CONFLICT	MONITOR AND RECORD EFFECTS OF LAND USE LEGISLATION	IDENTIFY AREAS FOR DEVELOPMENT
ORGANIZE AND COORDINATE PARTICIPATION IN PLANNING	ARRANGE AND SET-UP MEETINGS AND DISCUSSION FACILITIES	ESTABLISH AND MAINTAIN LIAISON WITH OTHER AGENCIES	ESTABLISH AND MAINTAIN CONTACT AND FOLLOW-UP PROCEDURES WITH GROUPS	FACILITATE GROUP DISCUSSIONS	APPLY PARLIAMENTARY PROCEDURE IN MEETINGS	CONDUCT PLANNING MEETINGS	CONDUCT PUBLIC MEETINGS
MANAGE PLANNING OFFICE	ESTABLISH AND MAINTAIN AIR PHOTO LIBRARY	ESTABLISH AND MAINTAIN GENERAL OFFICE FILING SYSTEM	SET UP AND MAINTAIN TECHNICAL LIBRARY	ESTABLISH AND MAINTAIN MAP FILING SYSTEMS	SELECT AND ORDER MAPS, AIR PHOTOS, AND OTHER INFORMATION SOURCES	ORDER AND MAINTAIN DRAFTING ROOM EQUIPMENT AND INVENTORY	MAINTAIN AND SET UP DATE ACTIVITY CHARTS AND PREPARE PROGRESS REPORTS
COMMUNICATE EFFECTIVELY	USE TELEPHONE EFFECTIVELY	PREPARE APPLICATION LETTERS AND RESUME	LISTEN EFFECTIVELY	COMMUNICATE VERBALLY	TAKE MINUTES OF MEETINGS	COMMUNICATE IN APPROPRIATE TERMS AND LEVELS TO AVOID MISUNDERSTANDING	PARTICIPATE IN TECHNICAL DISCUSSIONS

DOCUMENT CASE FOR ENFORCEMENT OF REGULATION AND BY LAW	EXPLAIN APPEAL PROCEDURES	EXPLAIN AND PROCESS VARIANCE APPLICATIONS	EXPLAIN PLANNING LIMITS OF SPECIFIC LEGISLATION

CONDUCT BUILDING CONDITION SURVEYS	INTERPRET AIR PHOTOS	IDENTIFY PLANNING PROBLEM AND DEFINE INFORMATION REQUIREMENTS	LOCATE AND RETRIEVE INFORMATION FROM STANDARD DATA SOURCES	EXTRACT RELEVANT INFORMATION FROM EXISTING REPORTS	LOCATE AND INTERPRET ASSESSMENT AND OTHER PROPERTY INFORMATION	READ AND EXTRACT INFORMATION FROM COMPUTER PRINTOUTS	INTERPRET SPECIALIZED RESOURCE MAPS	INTERPRET LAND CAPABILITY MAPS	INTERPRET SOIL MAPS	CONSTRUCT QUESTIONNAIRE SURVEYS

PARTICIPATE IN ANALYSIS OF POPULATION TRENDS	CROSS-COMPARE INFORMATION FROM VARIOUS SOURCES AND TYPES	ANALYZE CENTRAL TENDENCY AND DISPERSION OF STATISTICAL DATA	CONVERT DISTRIBUTION DATA TO VOLUMES, DENSITIES, RATE AND PERCENTAGES	DETERMINE STATISTICAL CORRELATIONS	EVALUATE DATA AND OBSERVATIONS TO ASSESS PROJECT RESULTS	EVALUATE DATA AND OBSERVATIONS TO ASSESS NEEDS	IDENTIFY FUNCTIONAL LINKAGES BETWEEN COMMUNITIES	CONDUCT RESIDENTIAL NEED STUDIES	SOLICIT EXPERT OPINION DURING ANALYSIS

PREPARE FINISHED DRAWINGS FROM SKETCHES	CONVERT DATA TO GRAPHS, CHARTS, AND SYMBOLS	SELECT AND APPLY SEPIA, FILM, AND BLUEPRINT PROCESSES	TRANSFER INFORMATION FROM AIR PHOTOS TO LINE MAPS	PREPARE LINE DRAWINGS FROM PHOTOGRAPHS OF BUILDINGS	PHOTOGRAPH LANDSCAPES AND MODELS	SKETCH IDEAS FOR COMMUNICATION	PREPARE VISUALS FOR PRESENTATIONS	PREPARE ARTWORK FOR MAP COLOUR SEPARATION	PREPARE LAYOUT OF REPORTS FOR PRINTING	NEGOTIATE PRINTING OR REPRODUCTION OF REPORTS AND PRESENTATIONS

PREPARE DISTRIBUTION MAPS	ENLARGE AND REDUCE MAPS USING PANTOGRAPHS	PREPARE PROPERTY OWNERSHIP MAPS	PREPARE SITE PLANS	PREPARE AND AMEND ZONING MAPS	ENLARGE AND REDUCE MAPS USING GRID SYSTEM	READ AND INTERPOLATE CONTOURS	PREPARE TOPOGRAPHIC MAPS	PREPARE BUILDING CONDITION MAPS	CALCULATE SLOPE AND GRADIENT ON MAPS	CONSTRUCT PROFILES FROM CONTOUR MAPS

ASSESS NEED FOR IMPROVEMENT OF STREETS AND SERVICES	TAKE AND ANALYZE SOIL SAMPLES	TAKE AND ANALYZE AIR SAMPLES	TAKE AND ANALYZE WATER SAMPLES	RELATE SITE TO SURROUNDING AREA	ANALYZE PHYSICAL SUITABILITY OF SITE FOR DEVELOPMENT	MONITOR CONSTRUCTION TO PROTECT NATURAL AND PHYSICAL RESOURCES	QUANTIFY AND COMPARE RESULTS OF ALTERNATE DESIGN SKETCHES

DETERMINE STREET WIDTHS AND PATTERNS	DETERMINE OPEN SPACE AND PLAYGROUND REQUIREMENTS AND LOCATIONS	DETERMINE LOT SIZES	ESTABLISH ORIENTATION AND LAYOUT OF LOTS	SELECT AND ESTABLISH ORIENTATION OF BUILDINGS ON LOTS	IDENTIFY NEED FOR AND PLAN PEDESTRIAN CIRCULATION PATTERNS	PREPARE ALTERNATE DESIGN SKETCHES	EVALUATE AESTHETIC QUALITIES OF ALTERNATE OF DESIGN SKETCHES	EVALUATE FUNCTIONAL QUALITIES OF ALTERNATE DESIGN SKETCHES

DETERMINE POTENTIAL EFFECTS OF INDUSTRIAL GROWTH	DETERMINE POTENTIAL EFFECTS OF CONSTRUCTION AND RESOURCE EXPLOITATION	MONITOR AND DESCRIBE EFFECTS OF LAND USE CHANGES	DETERMINE POTENTIAL EFFECTS OF CHANGING WATERSHEDS AND WATERWAYS	DETERMINE POTENTIAL EFFORTS OF COVER REMOVAL AND SUBSEQUENT CHANGE	COORDINATE PLANNING EFFORTS OF LOCAL RESOURCE EXPERTS	PREPARE BENEFIT COST RATIO ANALYSIS	CORRELATE RESOURCE INFORMATION	SELECT AND NEGOTIATE APPROVAL IN PRINCIPLE OF BEST DESIGN

PLAN AGENDA AND ORGANIZE MEETINGS	ADVISE LOCAL DEVELOPERS AND PLANNING GROUPS ON REGULATION	ASSIST LOCAL DEVELOPERS AND PLANNING GROUPS WITH DESIGNS	IDENTIFY COMMUNITY LEADERS	EXPLAIN IMPORTANCE OF PUBLIC PARTICIPATION IN PLANNING	ORGANIZE INVOLVEMENT AND COORDINATION OF OTHER AGENCIES	PRESENT PLANS TO CONCERNED GROUPS	PRESENT AND DEFEND PLANS BEFORE APPROVAL GROUPS	ADVISE LOCAL DEVELOPERS AND GROUPS ON PLANNING PRINCIPLES	ASSIST COMMUNITIES IN IDENTIFYING GOALS AND OBJECTIVES FOR PLANNING STUDIES	ALERT COMMUNITIES TO EXISTING AND POTENTIAL PROBLEMS, NOT GENERALLY RECOGNIZED

ORGANIZE AND MAINTAIN MATERIAL DISTRIBUTION	DEVELOP SPECIFIC SUBJECT INFORMATION BIBLIOGRAPHIES	ESTABLISH AND MAINTAIN CONTINUING LIAISON WITH OTHER PLANNING OFFICES	PLAN AND DEVELOP VISUAL DISPLAYS OF FUNCTIONS AND PROJECTS OF PLANNING OFFICE	PREPARE BUDGETS FOR TECHNICAL PLANNING OPERATIONS	ASSIST IN PREPARATION OF ANNUAL BUDGETS	ASSIST IN PREPARATION OF ANNUAL REPORTS	PREPARE SIMPLE PROJECT AND COST PROPOSALS

ADDRESS GROUPS	INTERPRET VERBAL AND NON VERBAL COMMUNICATIONS	PREPARE AND PRESENT CLEAR INSTRUCTIONS	KEEP ABREAST OF NEW DEVELOPMENTS IN FIELD	WRITE TECHNICAL REPORTS	WRITE TECHNICAL INFORMATION BUSINESS LETTERS	WRITE PROJECT BUSINESS LETTERS

SAMPLE 3

Student Competency Profile

ISSOE Form E
Clerk-Typist (clerical)
203.362-010

Name Sherrill Hogueland

Instructor D. Smith

Program Office Training 140303

School Occupational Education Center

Date April 10, 1979

PERFORMANCE	ISSOE Competencies: 020102 Use Telephone Service	020103 Receive/Place Calls	020301 Process Communications	030101 Type Arranged Bus. Letter	030102 Type Unarr. Bus. Letter	030103 Type 2-Pg. Unarr. Bus. Letter	030104 Type Memo—Unarr. Copy	030105 Type Memo—Handw. Copy	030106 Type Table—Arr. Copy	030107 Type Table—Handw.	030108 Type Manuscript	030109 Type Purchase Order	030110 Type Bill of Lading	030111 Type Invoice	050501 Select Duplication Process	060201 Elect. Print. Calculator
Outstanding																
Skilled	•	•	•	•					•		•	•	•	•	•	•
Satisfactory					•	•	•	•		•						
Satisfactory with Supervision																

total number of instructional packages (modules) necessary, (2) reduce the total number of competencies to a more manageable number, (3) reduce the overlap of content coverage that is sometimes necessary when many task statements are dealt with individually, and (4) help show the logical relationships that various tasks have with each other. A third option, favored by some CBE program developers, is to group those competencies that are of lesser scope or importance and to give individual attention only to those meriting it because of their frequency of occurrence or criticality to job success.

Has an appropriate instructional system been designed and implemented? In CBE, the instructional program must provide for the individual development and evaluation of the specific competencies. That is, each student must be given the opportunity to develop each of the competencies important to his/her training program, and to demonstrate attainment of each competency. This essential element of CBE has strong implications for the type of instructional system needed (including the learning materials to be used), as follows:

- Instruction should be individually paced rather than time-based--Since students progress through the program by demonstrating competency, and since students do not all learn at the same rate, the program should be designed so as to enable students to work and progress at their own rate. This provides each student with the time needed to master one task before proceeding to another and allows everyone the opportunity to succeed in the training program. In contrast, conventional instruction assumes that a certain amount of content is to be covered in a specified period of time, thus creating an emphasis on time spent, rather than on competency achievement.

- Emphasis should be on students' achievement of exit requirements--Ideally, this means that students should be able to enter the program at any point and exit whenever they have demonstrated ability to perform the competencies required for the occupation or suboccupation. Even if institutional constraints make a totally open-entry/open-exit program difficult or impossible to implement--and this is particularly true in secondary schools--the concept can be at least partially incorporated within a more traditional framework. That is, reasonable time limits can be imposed, but, within those limits, a good deal of flexibility can be built in.

  Students can be given credit for previously acquired competencies by successfully "testing out on" (performing) those skills. They can be allowed to move on to new skills when they are ready, progressing quickly through

some competencies and being given more time on others if they need it. Even if "grading periods" are required, students who need more time can be given a grade of incomplete for certain competencies--indicating, not that they have "failed," but that they have not yet achieved and demonstrated these skills.

- Learning experiences should be guided by frequent feedback--The foregoing clearly implies that feedback on student progress should be continuous--built into learning experiences to enable students to identify and work on problem areas and continue their progress without interruption. Individual students should be able to demonstrate and be evaluated on their performance when they are ready, not when the group is ready or only at set times (e.g., when grading periods call for it).

- Instructional materials should be modularized and flexible to allow for different learning styles and rates--We have said that each student must be given the opportunity to develop and demonstrate each of the specified competencies, and that students do not all learn in the same way or at the same rate. This means that instruction should (1) focus directly on competency development, (2) allow for self-pacing and continuous feedback, and (3) provide a variety of learning activity options.

  An efficient, effective way to deliver this kind of instruction is through the use of individualized learning packages (modules or learning guides). The learning package (1) identifies the objective (competency) to be achieved, (2) guides students through a series of learning experiences and activities designed to help them achieve the competency, and (3) provides feedback devices and specific criteria to be used in assessing students' performance. Students are given explicit directions for what they are to do, what materials and resources they are to use, and how they will know when they have achieved the competency. Optional and alternate activities can be included, and a variety of media and materials can be employed, to give each student an opportunity to master the competency (regardless of learning style and ability).

  With students thus taking more responsibility for their own learning and progressing at their own rates, the instructor is free to become more of a resource person, assisting students individually and on a small-group basis as needed, and evaluating performance when each student is ready.

- A variety of supporting instructional materials and media should be provided--CBE programs require a variety

of supportive materials and media to assist students in completing learning activities and attaining the specified competencies. If students will be working on and mastering competencies at their own rates, a sufficient variety and quantity of items--such as reference books, programmed materials, films, film loops, slide/tapes, and audio and video recordings--should be provided. This serves to enrich the learning activities; accommodate different learning styles; provide alternate paths to competency attainment; and allow students to study, review, and practice when and as often as they need to.

- Supporting instructional facilities and equipment should be provided--In addition to the regular classroom/laboratory facilities, some type of learning resources center (either within the classroom or shop, or separate and centrally located) should be provided to house the instructional materials, media, and audiovisual equipment students will be using as they complete various learning activities. Study carrels or reading tables, slide projectors, videotape equipment, cassette tape players, conference areas, and files or storage areas for learning packages are some of the items that may be needed to support students' work.

- Teacher orientation and training should be provided--CBE involves some very different instructional concepts, approaches, and skills. Many teachers will need to be oriented to the CBE approach, to their new instructional role (that of resource person), and to the various management and record-keeping procedures involved. If learning packages are to be used, and if these are to be developed in-house, staff will require training and assistance in their development.

Have appropriate individualized learning packages been developed for each competency? Although the use of individualized learning packages is not an essential characteristic of CBE, most fully functioning CBE programs have recognized the potential of this approach for focusing on the individual development and evaluation of the specified competencies for each student.

As figure 2 illustrates, this means that, in a CBE system, the instructional development process generally moves directly from the identification, analysis, and clustering of competencies to the development (or selection) of learning packages and strategies to deliver on those competencies. The conventional approach (figure 1)--involving as it does more emphasis on content areas and group instruction within specified blocks of time--moves instead to the development of overall plans for a

course or program (the course of study), and then to unit and lesson plans.

In many institutions, individual instructors are given total responsibility for developing, continuously updating, and revising the learning packages students will use. Given a list of the competencies to be achieved by students, they decide how each competency will be taught--what prerequisites are required, what instructional strategies will be employed, what criteria will be used to evaluate student performance. These decisions are used to organize the content of the learning packages.

In other institutions, particularly when more than one instructor will be using the materials, the development of learning packages is a team effort. An efficient and productive materials-development team consists of an educational technologist, a typist, and one or more instructors. With CBE, a new teacher may "inherit" from another instructor, not a course of study and series of lesson plans, but a list of competencies and a series of learning packages.

Although some states and districts are developing (and making available) CBE materials in some occupational areas (e.g., learning activity packages [LAPs] developed through the IDECC consortium of states[3]), high-quality materials do not presently exist in all occupational areas. Thus, it is more than likely that staff involved in competency-based instruction will need to develop their own learning packages or at least work with others in a team effort. To assure the production of high-quality, usable, effective materials, you will need to provide funds and staff time for the development effort and ensure that staff have the needed training. Some institutions schedule workshops and bring in outside consultants with expertise in CBE and the development of learning packages.

There are at least two types of learning packages, with some definite advantages and disadvantages inherent in each. Learning guides are simple materials. They are reusable paks containing directions for learning activities and explaining where to go for needed resources. They may be developed relatively quickly by school personnel, and they are fairly inexpensive to reproduce. Obviously, their effectiveness is dependent upon the quality and availability of the support resources to which they refer. Modules, which are basically self-contained, transportable, and

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3. See pp. 16-19 of the prerequisite module, Direct Curriculum Development, for information on this consortium of states and other sources to check for competency-based materials already developed or in process.

consumable in nature (such as the one you are now reading), have the advantage of being completely under the control of the developers. The instructional content and approach can be tailored to meet the particular needs of the program, and few outside resources are needed. Self-contained modules, however, can be very time-consuming and expensive to develop, and they demand greater expertise in their production. Most CBE programs are now using basic learning guides, adding some instructor-produced instructional materials to enhance the learning activities.

Although CBE learning packages come in a variety of shapes, sizes, formats, and levels of detail, there are certain components and characteristics you and your staff should be looking for, whether the materials are developed in-house or produced elsewhere. Following is a suggested format for a CBE learning package, with brief explanations of each component:

- Title page--This section should give such identifying information as the program name, learning package title and number, and competency number(s) covered. A learning package may cover one of the competencies identified for the program or a cluster of related competencies. This decision grows out of the analysis step depicted in figure 2. In the process of analyzing each verified competency for its subtasks, knowledge elements, affective elements, and prerequisite skills and knowledge, it may be determined either that (1) the competency is of sufficient scope and importance to warrant a separate learning package, or (2) two or more related competencies should be grouped, or clustered.

- Introduction--Sometimes called the Rationale or Purpose, the introduction should briefly explain to students what competency is to be achieved, why it is important, and how it relates to other skills they are acquiring.

- Directions for use--At some appropriate place within each learning package, students should be given clear directions for how to use the learning package, including (1) any prerequisites to be completed before beginning the learning package, and (2) procedures for "testing out on" the competency (preassessment). These directions for use are often of two types: those general to a given set or series of learning packages and those unique to the specific learning package in question. In the module you are reading, both types of directions are provided in the Module Structure and Use section, which follows the Introduction. In addition, specific directions for completing each activity are provided throughout the module as each activity is introduced.

- Objectives--Each learning package should spell out, in performance terms, the terminal and enabling objectives to be achieved. If the basis of the program is, for example, a V-TECS listing of objectives for the occupation, the performance objective(s) of the learning package are usually taken directly from the V-TECS catalog, without change. If some other competency identification procedure is used (e.g., the DACUM process), the terminal performance objective is derived simply by translating the competency or competencies to be covered into an objective that states (1) the overall performance required (activity to be performed), usually simply a restatement of the competency; (2) the conditions under which it will be performed; and (3) the level of performance expected. For example, if the competency were "measure blood pressure," the terminal objective might read "Given a 'patient' and the necessary equipment, measure the patient's blood pressure using standard medical procedures. Your performance will be assessed by your instructor using the final performance checklist contained in your learning package."

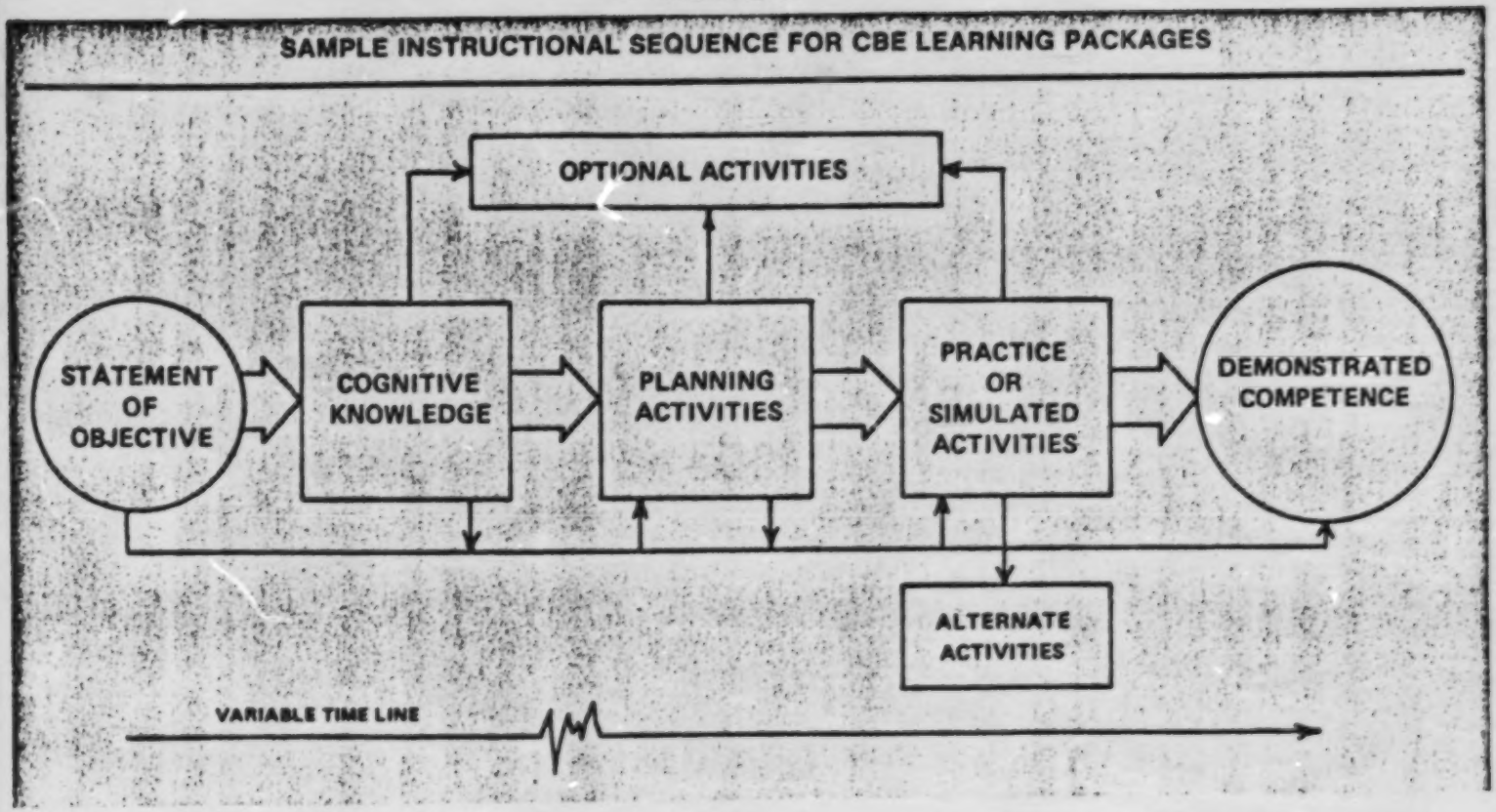
  The enabling objectives grow out of an analysis of each competency into subtasks, cognitive elements, etc. Based on that analysis, the developer decides what steps and procedures are involved in performing the competency, what background knowledge needs to be acquired, and what understanding and attitudes are involved. Enabling objectives are then developed that cover those elements, give students the chance to practice the competency, and lead them in a logical sequence to achievement of the terminal objective (see figure 5).

- Learning experiences/activities--Learning experiences should be keyed directly to the achievement of the enabling objectives and, finally, to the attainment of the terminal objective. A variety of activities should be included to allow each student to master the competency. Activities giving students the opportunity to practice the skill before the final assessment should always be included. These practice activities should be as realistic (close to actual job conditions and requirements) as possible.

  Evaluation devices (e.g., self-checks, checklists) to allow for continuous feedback on student progress should be built into the learning experiences.

- Final assessment--In CBE, assessment of student competence requires actual performance of the competency as the major source of evidence. The final performance is often the same as the practice experience(s), except that the student now feels ready to be assessed by the instructor.

FIGURE 5


SAMPLE INSTRUCTIONAL SEQUENCE FOR CBE LEARNING PACKAGES
OPTIONAL ACTIVITIES
STATEMENT OF OBJECTIVE
COGNITIVE KNOWLEDGE
PLANNING ACTIVITIES
PRACTICE OR SIMULATED ACTIVITIES
DEMONSTRATED COMPETENCE
ALTERNATE ACTIVITIES
VARIABLE TIME LINE

Students who feel they already possess a competency covered by a particular learning package should be able to demonstrate competency by going directly to the final assessment, without going through the other learning experiences.

The criteria the instructor will use in evaluating students' performance should be clearly spelled out in the learning package. These criteria are derived from the competency analysis and should reflect actual job requirements. They should be stated in observable, performance terms to allow for as much objectivity as possible.

Sample 4 shows the title page, learning activities page, and evaluation pages of a typical learning guide (this one from a bank teller training program). The complete guide contains all the components described above. The module you are now reading can serve as a model for self-contained instructional materials.

Your administrative support is essential if a competency-based instructional system is to be implemented successfully. The previous discussion has clear implications for your role in facilitating this effort. First, you will need to ensure that competencies are identified, verified, made explicit, and kept up to date. This may involve your assistance in locating or conducting the development of occupational analyses (e.g., facilitating the formation of a DACUM committee) or in encouraging the active use of advisory committees.

Second, your general administrative support of the concept of CBE and of any resulting changes in administrative requirements or procedures is essential. For example, if instruction is modularized, your acceptance of successful module completion as evidence of progress toward program completion will be important. The grading system may need to be completely changed or at least modified (e.g., pass/fail grading instead of letter grades; granting of incompletes; translation of module/competency completion into letter grades, if such are required). You may need to initiate or support a move to an open-entry/open-exit system or find other ways to lessen emphasis on rigid scheduling and time requirements. Administrative flexibility is critical if the full potential of the competency-based approach is to be realized.

Third, you may need to provide funds for the development/purchase of learning packages, supportive media and materials, and additional facilities and equipment (e.g., learning resources center). Alternatively, you might join a consortium of institutions to develop materials, thus reducing the costs involved.

SAMPLE 4

LEARNING GUIDE

BANK TELLER

PLACING HOLDS AND STOP PAYMENTS

There is a certain amount of risk involved each time a teller cashes a check. There is a possibility that the check is not valid, that the drawer may not have sufficient funds to cover the check, or that the drawer may have stopped payment on the check. A bank must take steps to protect itself from loss through bad checks, and a teller must follow the procedures established by the bank. In this module you will learn to place "holds" and "stop payments."

Read the two objectives below. If you feel that you are already able to perform these tasks, read the Check-Out Activities on the back cover. Then either arrange with your instructor about doing the Check-Out Activities,

or

If you need to complete learning activities in order to be able to do the tasks, find the Learning Activities inside this module and go through them in the order in which they are listed.

(1) Given a blank Hold form and a case description, place a hold on the customer's account. All entries should appear without error in the appropriate spaces on the form.

(2) Given a supply of blank Stop Payment forms and necessary information, place a stop payment on a check. All entries should appear without error in the appropriate spaces on the form.

SOURCE: A cooperative effort between the Bureau of Vocational Education, State Department of Education, and the Department of Vocational Education, College of Education, University of Kentucky, Lexington, n.d.

Learning Activities

1 → READ "Holds," in the Bank Teller's Training Manual, pp. 57-59.

(or) _____

2 → STUDY CAREFULLY in the Bank Teller's Training Manual, pp. 57-58, the five reasons why holds are placed.

(or) _____

3 → COMPLETE the sections of a Hold form on Instruction Sheet I, SECTIONS OF A HOLD FORM.

(or) _____

4 ✓ CHECK YOUR KNOWLEDGE of placing holds by completing Student Self-Check I, PLACING HOLDS.

5 → READ "Stop Payments," Bank Teller's Training Manual, pp. 59-60.

(or) _____

6 → READ "Stop Payments," pp. 44-45 and "Alterations," in Bank Teller's Do's and Don'ts, p. 23.

(or) _____

7 ✓ WORK the crossword puzzle on Student Self-Check II, STOP PAYMENTS CROSSWORD PUZZLE.

8 ✓ CHECK YOUR KNOWLEDGE of stop payment procedures by completing Student Self-Check III, STOP PAYMENT PROCEDURES.

9 ✓ ARRANGE with your instructor to complete this module by going through the CHECK-OUT ACTIVITIES listed on the back cover.

Check-Out Activities

The statements below explain the activities you must be able to complete in order to finish this module. After you complete the activities, your instructor will rate your performance using the Instructor's Final Checklist, PREPARING HOLDS AND STOP PAYMENTS.

✓ Your instructor will provide a hold form and a case description. Use the form to place a hold on the customer's account described in the case.

✓ Your instructor will provide a stop payment form and a case description. Use the form to place a stop payment on the check described in the case.

Student _____

Instructor's Final Checklist

PREPARING HOLDS AND STOP PAYMENTS

Check the student's performance in the following elements of preparing holds and stop payments.

Place an X in the appropriate box indicating not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, the item was impossible to complete, place an X in the "Not Applicable" box.

Performance Level: All items must receive a rating of FULLY ACCOMPLISHED (or Not Applicable). If any items are rated Not Accomplished, or Partially Accomplished, the student and instructor will discuss this and decide which learning activities must be repeated.

	Student Performance			
	Not Applicable	Not Accomplished	Partially Accomplished	Fully Accomplished
1. In the process of placing a hold on a customer's account and completing the form, the student:				
a. Entered account number.	[ ]	[ ]	[ ]	[ ]
b. Entered date.	[ ]	[ ]	[ ]	[ ]
c. Entered "by".	[ ]	[ ]	[ ]	[ ]
d. Entered amount.	[ ]	[ ]	[ ]	[ ]
e. Entered released date	[ ]	[ ]	[ ]	[ ]
f. Entered check number.	[ ]	[ ]	[ ]	[ ]
g. Wrote description	[ ]	[ ]	[ ]	[ ]
2. In the process of placing a stop payment on a check and in completing the form, the student:				
a. Filled in correct date.	[ ]	[ ]	[ ]	[ ]
b. Filled in drawer's name	[ ]	[ ]	[ ]	[ ]
c. Filled in check number.	[ ]	[ ]	[ ]	[ ]
d. Filled in correct date of check	[ ]	[ ]	[ ]	[ ]
e. Filled in payee's name.	[ ]	[ ]	[ ]	[ ]
f. Filled in correct amount.	[ ]	[ ]	[ ]	[ ]
g. Wrote reason for stop payment	[ ]	[ ]	[ ]	[ ]
h. Signed form	[ ]	[ ]	[ ]	[ ]

Fourth, if learning packages are to be developed, it is critical that these be high-quality materials that in fact assist students in developing the competencies they need. As indicated earlier, staff will need to be given the time to develop the kind of materials required, and training if, as will generally be the case, they lack experience in writing competency-based learning packages. In addition, procedures, time, and resources for pilot testing and revising the materials (based on student feedback and other criteria for measuring their effectiveness) should be built into the development process.

Finally, you will need to provide or arrange for needed staff orientation to the competency-based approach and the program management system they will be using (e.g., how student progress records are to be maintained). If CBE is being newly installed at your institution and management procedures have not yet been devised, staff will undoubtedly need help in setting up organized, efficient procedures. You may need to arrange visits to institutions that have successfully implemented CBE or bring in outside consultants to provide staff with ideas they can then adapt to your particular setting.

For more information on techniques for developing a course of study/curriculum guide, you may wish to read Bentley, Administering the Successful Vocational Education Program, pp. 101-110. The author gives practical suggestions, based on his experience as an administrator, for how to use job analysis and course outline for curriculum; how to identify concepts; and how to select textbooks, reference books, and teaching aids, among other topics.

For more information on competency-based education and the development and use of modularized learning packages, you may wish to read Finch and Crunkilton, Curriculum Development in Vocational and Technical Education, pp. 219-244. The authors explain the concepts underlying CBE; give detailed information concerning the characteristics, advantages, limitations, and components of instructional modules; and describe suggested module-development procedures.

The following worksheet is designed to test your comprehension of the material in the information sheet, "Guiding the Development and Improvement of Instruction," pp. 9-45, and to help you relate that information to materials and procedures in use in your state, school system, or institution. The items require that you complete activities and document your findings in writing. Please respond fully, but briefly, and make sure you respond to all parts of each item.

INSTRUCTIONAL DEVELOPMENT WORKSHEET

1. a. Locate two courses of study/curriculum guides for an occupational area with which you are familiar: one that is available through your state department of education, an instructional materials laboratory, or a university; and one that was locally developed by a school system or a single institution. Compare the two documents, and describe their similarities and differences.

   b. Locate a competency-based learning package covering one or more competencies for an occupation with which you are familiar. Describe the format and characteristics of the package. (NOTE: If possible, it would be useful to locate two different learning packages [developed in two different locations] covering the same competency[ies]. You could then compare and contrast these materials.)

2. Arrange through your resource person to meet with an experienced administrator to gather information concerning the instructional development and improvement process at his/her institution. Document your findings in writing. Specifically, you should ask the following questions:

   a. What is the administrative/supervisory structure of your educational institution?

   b. Describe the basic instructional approach used in your institution: traditional? competency-based? a combination of approaches?

NOTE: If the approach used is mainly conventional, proceed with items c through j; if mainly competency-based, proceed to items k through o. If some combination of approaches is used, ask both series of question. Items p and q should be completed for all situations.

Questions Related to the Conventional Approach

c. Who is responsible for course-of-study development?

d. What steps are followed in developing courses of study?

e. How much staff time is involved in developing courses of study?

f. How are teachers encouraged to develop and use courses of study?

g. What resources are made available to the developers to facilitate the process?

h. How often are courses of study reviewed and updated or modified?

i. Is there a common format for courses of study? How was the format determined?

j. How detailed are the courses of study in use (e.g., do they deal in broad outlines, do they include specific learning and evaluation activities, or do they fall somewhere between the two extremes)?

Questions Related to the Competency-Based Approach

k. What competency identification process is used?

l. What method is used for listing competencies and making them public in advance of instruction?

m. Are learning packages used to provide instruction? If so, how are the learning packages developed/selected, and what are their components? If not, how is instruction provided?

n. What sort of grading system is used?

o. Is a completely self-paced, "time-free" system used? If not, what aspects of the program are still time-based?

Questions Related to Both Approaches

p. Is there a written policy or set of criteria in use to guide teachers and others in selecting the instructional materials and equipment needed to meet course/program objectives? Who developed these guidelines, if they exist? Formal or not, what criteria are used? Who is involved in identifying and approving resources, and exactly what procedures are used?

q. What is your role--direct and indirect--in facilitating the instructional development process and ensuring that needed improvements are being made?

Compare your written responses on the "Instructional Development Worksheet" with the "Model Answers" given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same major points.

MODEL ANSWERS

1. a. Even if the two courses of study were based on the same occupational analysis or content source, there will undoubtedly be several differences between the documents. At the local level, tasks or instructional areas to be covered should have been verified and selected based on the local employment situation. Thus, the content to be covered may differ significantly. The institution or district will probably have developed its own format, and determined how much detail the course of study should include. The goals of the school or school district, the type of students enrolled, the available resources and facilities--these and other factors would affect decisions made at the local level about what is to be taught, and how it will be taught. You would, of course, expect to find some similarities in the skills to be taught, in the tools and equipment needed, and, perhaps, in the suggested time allocations (if given in both documents).

   b. Although CBE learning packages come in a variety of formats, certain components and characteristics must be present for the package to be considered competency-based, for example:

      - The package must be based on one or more competencies identified as important to the occupation.
      - The terminal and enabling performance objectives must be clearly spelled out.
      - Learning activities must lead directly to the achievement of the terminal objective.
      - Devices for immediate and continuous feedback must be included.
      - Actual performance of the competency must be required; criteria to be used in evaluating this performance must be clearly spelled out and made public.

2. Answers will vary depending on the person interviewed and that person's school situation. However, you should have been sufficiently aware of the range of possibilities to probe for certain key points, such as the following:

   a. Is the administrator part of an administrative/supervisory team, or does he/she handle most administrative/supervisory functions single-handedly?

   b. Many states are moving toward the competency-based approach. Some institutions run parallel programs or combine elements of both approaches, as appropriate to the setting.

   c. Is anyone responsible? That is, do courses of study exist? If so, where do they come from? Is there a curriculum development team, or is each teacher given the responsibility for the whole job? Are there instructional supervisors available to help?

   d. Has a systematic procedure been established?

   e. Are teachers expected to devote a significant amount of time and energy to this task?

   f. Is the development and use of the course of study taken seriously by administrators and staff alike? Is there some vehicle (e.g., staff development program, staff meetings, etc.) for ensuring that the plans are implemented?

   g. Is the necessary time, technical assistance, space, etc., provided? Is there a handbook or course planning manual available for new teachers? Are model curriculum guides and other curriculum resources available to assist the developers in planning each course/program? If they need assistance, do teachers have access to other experienced instructors inside and outside the institution, and are they encouraged to consult with their advisory committee?

   h. Realistically, this may happen only when an institution is about to be visited by an accrediting agency. Ideally, courses of study should be systematically reviewed and updated whenever curriculum changes or instructional improvements are called for.

   i. Is there a district-determined format? Does each department, division, service area, etc., have its own format? Were teachers and other appropriate staff involved in deciding on the format to be used?

j. How much planning is left to the individual instructor?

k. Have the competencies for each occupation been identified and verified through some procedure, such as the DACUM process? Were existing competency lists used, or were new analyses conducted?

l. Is some sort of profile chart developed? In traditional programs, administrators approve the courses of study for each course or program. What procedure is used by the administrator you interviewed for reviewing and approving the competency listing or curriculum plan in the competency-based program?

m. If learning packages are used, are individual teachers responsible for their development? Are the learning packages self-contained, self-paced, and highly individualized? If learning packages are not used, what means have teachers found to focus on the individual development and evaluation of each competency?

n. Is a pass/fail system in use? If not, how is the achievement of competencies translated into grades?

o. Is the institution using (or moving toward) an open-entry/open-exit system?

p. If formal written guidelines for selecting instructional resources exist, were they developed in-house? At the district level? How comprehensive are the criteria (formal or informal) in use? Do they provide sufficient guidance for selecting appropriate resources of high quality? At what point does the administrator become involved? Who has advisory powers (e.g., instructional supervisors working with teachers), and who has the final authority for approval (e.g., local director and superintendent)?

q. Does the administrator's role begin and end with approving courses of study or competency profiles and the accompanying equipment and materials specifications, or does he/she take an active leadership role in supporting development efforts and promoting needed instructional improvements?

Level of Performance: Your completed "Instructional Development Worksheet" should have covered the same major points as the model responses. If you missed some points, were unable to complete certain items, or have questions about any additional points you made, check with your resource person.

Learning Experience II

OVERVIEW

After completing the required reading, critique the performance of an administrator in a given case study in guiding staff in selecting and using a new instructional strategy.

You will be reading the information sheet, "Creating a Climate for Instructional Improvement," pp. 59-71.

You will be reading the "Case Study," pp. 73-74, and critiquing the performance of the administrator described.

You will be evaluating your competency in critiquing the administrator's performance by comparing your completed critique with the "Model Critique," pp. 75-77.

continued

You may wish to investigate (individually or with peers) an instructional strategy or innovation and plan for its implementation in a secondary or postsecondary institution with which you are familiar.

You may wish to interview an experienced administrator concerning his/her role in the improvement of instruction.

For information on the administrator's responsibilities in encouraging the continuing improvement of the instructional program, read the following information sheet.

CREATING A CLIMATE FOR INSTRUCTIONAL IMPROVEMENT

Regardless of how carefully planned a course or program may be, no teacher or instructional program is ever perfect. While the faculty itself is the primary agent for the improvement of instruction, administrators must provide the leadership for needed change. Whether you are directly responsible for the supervision of teachers or delegate this responsibility to others, as an administrator you must facilitate teachers' instructional efforts, provide channels through which problems can be discovered and dealt with, and create the climate in which new approaches can be tried in response to changing needs.

Keeping Up to Date

In order to provide the necessary instructional leadership, administrators need to be knowledgeable and up to date concerning educational issues; accepted principles of learning; and traditional and promising new instructional strategies, methods, and materials. This requirement may seem unrealistic and unreasonable given (1) the many areas in which administrators must be competent (e.g., budgeting, facilities planning), (2) the variety of occupational areas for which they may have administrative responsibility, and (3) the never-ending demands on their time. In fact, however, in making decisions related to instructional improvement, administrators will depend heavily on the advice and recommendations of others, such as teachers, supervisors, consultants, advisory committee members, and media specialists. Thus, they need to be sufficiently knowledgeable to make informed judgments in responding to requests and recommendations from others. Furthermore, there will be times when they need to initiate change--to be proactive rather than reactive.

There are several avenues you can use to keep up to date concerning the teaching/learning process and, as a result, help to promote improved instruction in your institution.

Maintaining membership in professional organizations. There are numerous educational, vocational educational, service area, and occupational organizations at the local, state, regional, and national levels (e.g., American Vocational Association, American Educational Research Association) that produce publications,

conduct research, and sponsor meetings for the purpose of keeping educators involved and informed. Concerned administrators will not only join and make use of the services of such organizations themselves, but will encourage faculty to become involved as part of their professional development efforts.

Reading journals and other publications. Membership in professional organizations will give you access to a variety of journals and other kinds of informational documents that can help you keep up to date on the latest developments within vocational and general education. In addition, although you cannot have experience or expertise in every occupation for which your institution provides training, you do need to have at least a general idea of what is involved. Skimming trade journals and magazines can alert you to new technologies, techniques, and practices in the various occupations that may indicate the need for present or future curriculum changes. These, in turn, will often require the use of new instructional strategies and materials.

Education-related projects will also often be described in professional journals or in state publications. State departments of education and universities often conduct educational research, develop and test innovative approaches to vocational education, and make the results available to other educators through this means. For example, a recent issue of a vocational journal published by a state department of education described a state-funded project to develop and disseminate free competency-based vocational instructional materials to teachers around the state--something vocational administrators should know about.

Resources in Vocational Education (RIVE), a bimonthly publication of the National Center for Research in Vocational Education, The Ohio State University, provides still another source. It contains indexes to, and summaries (abstracts) of, a variety of research, instructional, and other materials in vocational and technical education. Abstracts of funded proposals are also included. One recent issue of RIVE, for example, described a project to develop/adapt vocational curriculum materials for use with bilingual students.

Again, you need to share this up-to-date information. When innovative approaches and materials come to your attention, you need to be sure that instructors and other appropriate staff are made aware of them. One way is to mark and route relevant articles to teachers and others who might be interested. Be sure to follow up to determine their reactions to these ideas and to reinforce your genuine interest in their instructional efforts. You should encourage faculty to build a personal library of journals and other documents containing ideas and materials they might find useful now or in the future. In addition, you and/or other appropriate officials should develop a learning resource

area or center--available to the entire staff--that contains an abundance of resource materials and information that can be tapped by staff as they plan and deliver instruction.

Attending conferences, conventions, lectures, and workshops. Professional associations, colleges and universities, community organizations, and state departments of education provide numerous opportunities of this type, through which you can learn about new instructional techniques and innovations, emerging needs in education, and community resources available to faculty and students. By meeting formally and informally with other administrators and participants at such events, you can learn a great deal about instructional approaches in use in other settings, problems encountered, and solutions tried. Once again, you should also encourage faculty and other staff to attend such functions, bringing particularly pertinent meetings to the attention of those who could most benefit. You may be able to use vocational education support funds for these purposes.

Visiting other vocational programs and professionals.[4] One excellent way for the administrator to keep up with new developments in instructional practice is to visit other vocational programs, both local and out of state. If you read the literature and attend professional meetings, you will undoubtedly learn of programs that are outstanding or that are using new or different instructional techniques worth looking into. For example, an institution may have installed, or be in the process of installing, a completely competency-based occupational program. By visiting this program and talking with administrators and instructors, you could observe the program in action, examine the instructional materials, and gain firsthand knowledge of the instructional procedures in use.

Based on what you see, you might determine that one or more of your instructors should also visit that program to learn more about the instructional strategies in use. Intervisitation of teachers (within your institution and with teachers in other institutions) should be a common practice. It is your job to find the resources, provide the released time, and, in general facilitate such visits. The teacher's absence would have to be covered--either by hiring a substitute teacher, having other teachers share his/her duties, diverting the class to other school activities, or having an administrator, supervisor, or other staff member take over the class. You could use this

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4. The material in this section was adapted from William H. Bentley, Administering the Successful Vocational Education Program (West Nyack, NY: Parker Publishing Company, Inc.), pp. 170-171.

opportunity to occasionally substitute for teachers yourself and, thus, get a more realistic, up-to-date picture of the classroom situation and instructional problems facing your teachers.

Coordinating Local Demonstration, Pilot, and Exemplary Programs

When existing instructional strategies and materials are not meeting student needs, teachers need to be encouraged to try new techniques, and they need to be given the resources and assistance to do so effectively. For example, conventional instructional practices and materials may be inadequate to meet the needs of minority students, physically and mentally handicapped students being mainstreamed into the regular classroom, or non-traditional students such as older workers returning to the classroom or women seeking training in formerly "male" occupations.

You may be alerted to the existence of such programs and practices in several ways. State departments of education, universities, school districts, and schools are continually developing and pilot testing innovative instructional approaches and materials to better meet existing and emerging needs. By reading the professional literature and talking to other educators, you can become aware of successful pilot programs and innovations in other settings, and of opportunities for pilot testing new approaches and materials in your own institution or school district. The initiative may come from teachers themselves, with an idea they would like to try. Publishing companies that have developed innovative programs or products may approach a school or school system to promote their materials. Teams from school district research and development agencies may develop an innovation and then seek to install it in several schools or, perhaps, with one or a few teachers.

There are certain questions, such as the following, that the administrator should ask before selecting any innovation or becoming involved in a pilot project:[5]

- Does the proposed program contribute to the purposes of the school system or unit?
- Does it relate to the ongoing studies or concerns of the faculty or the school system as a whole?

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5. Adapted from Vernon E. Anderson, Curriculum Guidelines (New York, NY: Ronald Press Company, 1969), pp. 96-105.

- Can the school provide qualified personnel for the proposed project?
- Is there some qualified person on the faculty who would be capable of directing the project?
- Is it within the capability of the staff in the school system?
- Does it capitalize on some strengths we have within the faculty?
- Is there time within the total commitment of the school to plan, develop and implement the proposal?
- Will the innovation be effectively evaluated?
- Can we find out if the innovation will really make a difference in learning skills, attitudes, and values?
- Will it provide teachers and instructors an opportunity to become more skillful evaluators?
- Does it offer an opportunity for widened participation of teachers, administrators, supervisors, community people, and scholars from the universities and colleges?
- Will the school system have a significant part in determining how the project will operate?
- Can we open channels of communication within the school system so that all institutions will feel a part of the project?
- Can we give the necessary inservice education to instructors who will participate in the innovation?
- Are there ways of working with neighboring school systems, the state department of education, the universities, or the regional educational laboratory in conducting the project?
- Do we have sufficient time to consider the merits of the proposal before it is submitted?
- Will the required housing, equipment, and materials be made available?
- Can we build in a demonstration stage at some point in the project, if feasible and desirable?
- Will the innovation give staff an opportunity for inquiry, discovery, examination of ideas, or participation?
- Does it recognize the nature of the community in which we work?

We said that teachers needed to be given the resources and assistance necessary to implement a new instructional approach. The following recommendations for implementing innovative programs suggest how you can provide the structure needed for effective experimentation with a new approach.[6] They were developed for administrators in secondary school systems; the basic principles, however, can be applied in and adapted to a variety of school settings.

For central administrators. The major role of central administrators is to structure and monitor the entire organization of an innovation, using input from on-site administrators, on-site teachers, developers, and other resources so that information and procedures are specified and made concrete prior to the installation of the innovation. The central administrator should be responsible for the following:

- For a particular school, limit curriculum installations to one or two instructional areas in a given year.
- Require evidence from the program developers that materials have been thoroughly tested for errors and ambiguities.
- Invest a reasonable amount of money. (When program developers pay for most of the costs, the school system may be less careful in its selection procedures, more dependent on the developer for success, less thorough in teacher training, and less attentive to the need for adequate short- and long-range financial planning.)
- Coordinate meetings with developers, teachers, and subject-matter specialists in order to discuss teacher training requirements and procedures.
- Provide for teachers' released time from instructional duties for inservice training.
- Develop procedures to involve teachers in decision making prior to and during the implementation of the innovation.
- Involve subject-matter specialists from the participating schools in the decision-making processes.
- Identify program evaluation procedures before installation.

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6. Adapted from Joseph S. Karmos and Carol M. Jacko, "Innovations: A Note of Caution," NASSP Bulletin (October 1977): pp. 51-54.

- Formulate written agreements with the developer that describe the responsibilities of the developers, the school administration, and the teachers.
- Assign to the installation effort at least two teachers at the same grade level in a school for mutual support.
- Demonstrate personal, organizational, and financial support to site administrators and teachers.
- Attend training sessions in order to understand more about the potential frustrations and problems teachers may encounter.
- Provide meetings for administrators, teachers, and specialists to review installation progress and to identify and solve problems encountered. These meetings should be planned, scheduled, and documented.
- Periodically distribute a newsletter throughout the school system describing the progress being made in installing the innovation.

For on-site administrators. The major role of on-site administrators is that of liaison officer, clarifier, and supporter. On-site administrators monitor communication channels among program personnel. They are also the primary school agents responsible for having materials available when they are needed. The on-site administrator should be responsible for the following:

- Determine the characteristics of the proposed innovation.
- Assess teachers' attitudes, morale, and preferences before installation.
- Design a system by which differing views of teachers and specialists may be communicated and reconciled prior to installation.
- Describe to teachers the proposed procedures for gathering evaluative data and for obtaining periodic feedback on the innovation.
- Design operational procedures for obtaining teacher input concerning the tasks to be performed by consultants.
- With assistance from teachers, design a visitation plan for developers, consultants, and specialists.
- Set early delivery dates for all hardware and software.
- Make sure sufficient numbers of materials and supplies are available in the classroom before installation begins.

- Provide guides for informing teachers about what to do and expect during the first month of installation.
- Attend training sessions in order to better support the teachers.
- Develop procedures for giving teachers opportunities to discuss problems and concerns they have about the innovation.
- Initiate periodic meetings to discuss problems and changing needs.
- Assist teachers in solving problems.
- Play an active part in learning about the curriculum and observe it being taught and used.
- Be sure that teachers get the recognition they deserve.

Approving the Selection of Instructional Materials and Equipment

The selection of high-quality instructional materials and equipment to assist in meeting course/program objectives is critical to the success of the instructional program. Administrators are responsible for approving and then purchasing such materials and equipment. If teachers are encouraged to seek out and try new instructional approaches and to keep their programs current, the administrator will receive numerous requests for written and audiovisual materials and the latest equipment available. To ensure that good selections are being made and that the items purchased will, in fact, be used, administrators need to set up sound selection policies and procedures and provide faculty with adequate direction.

Sample 5 provides recommendations for overall selection policies (for instructional materials) that you might adapt to your own setting.

An effective approach to the selection of materials and equipment is to set up selection committees (composed of teachers, supervisors, administrators, media specialists, librarians, advisory committee members, etc., as appropriate to the institutional setting and the task to be done). Working as a team, committee members can (1) develop criteria for the selection of materials and equipment; (2) review what already exists at the school; (3) determine whether a new textbook, audiovisual aid, piece of equipment, etc., is actually needed; (4) discuss various materials and equipment with commercial sales agents and consultants; (5) review possible selections against the criteria developed; and then (6) make their recommendations through the appropriate channels. Sample 6 provides suggestions

SAMPLE 5

MATERIALS SELECTION POLICIES

Our district desires up-to-date, educationally valid materials.

Materials must carry out the curriculum and instructional goals of the district.

Every student must have access to an adequate supply of instructional materials.

Materials must reflect the interests and needs of a multi-ethnic enrollment and our pluralistic society.

An entire range of media, from print to electronics, shall be used.

Instructional materials will be under continuous review and assessment.

Teachers are the prime decision makers in the selection of instructional materials.

Views of parents and students shall be taken into consideration.

Procedures for selection shall be developed and implemented under the supervision of the superintendent or his/her designee.

Opportunities for review, appeal, and repeal of decisions shall exist.

The selection process shall be free from unreasonable restraints.

SOURCE: Adapted from Instructional Materials: Selection and Purchase (Washington, DC: National Education Association, 1976), pp. 22-31.

SAMPLE 6

SELECTION COMMITTEE GUIDELINES

The selection committee should be provided time, space, tools, and authority.

The administration should see to it that the selection committee is supported in the following ways:

- Has authority to schedule meetings or subcommittee meetings
- Can arrange for visits or conferences
- Has funds to engage expert consultants
- Has the means to complete its final recommendations
- Has clear channels for bringing recommendations to the superintendent or board for approval

The superintendent and his/her associates must create the conditions under which the selection process will move toward productive and conclusive results. It is the administration's duty to provide a clear statement of what is expected of the selection committee and to seek adequate financial, physical, and administrative resources for those involved in selection tasks. The administration must also make visible its interest and concern. Selection committees will do their best work when they feel that school authorities know and care about what they are doing.

A majority of the selection committee members should be teachers.

A general goal for those working on the selection of instructional materials may be stated as follows:

- The purpose of selection is to identify and channel into use materials that are relevant to school curriculum, contribute to the learning process, make effective teaching and learning tools, and meet the unique needs of the school district.

SOURCE: Adapted from Instructional Materials: Selection and Purchase, pp. 22-31.

The selection process will strive in all instances to identify and select the following:

- Materials that ensure the fulfillment of district curricular objectives
- Materials designed to promote sequential progress for all students while in school
- Materials that provide for differences in ability, interests, achievement, and background
- Materials that recognize that America's peoples take pride in their individual characteristics: sex, race, religion, and social background
- Materials that encourage self-instruction
- Materials that call upon the learner's eyes, ears, sense of touch, and need to be actively and physically involved

Among the goals of the selection process should be plans to assure that classroom teachers are oriented to the new materials so that they arrive at the following goals:

- See the values, benefits, and advantages of the newly selected materials
- Know how to put them to work for the benefit of the student
- Make the transition from the old to the new smoothly

for structuring the work of a selection committee. These recommendations were developed for use in secondary school districts, but could be adapted to any school setting.

Maintaining a Student Learning Resource Center

If the competency-based approach to instruction is to be used, some sort of learning resource center needs to be set up to (1) house the instructional materials and equipment students will be using, and (2) provide study, work, and conference areas for various learning activities other than the hands-on laboratory activities. While such centers are particularly important to programs using individualization, student self-pacing, and modularized instruction, they can facilitate student learning in any instructional program.

In a well-equipped and well-organized resource center, students can conveniently consult reference material, view or listen to instructional media, solve technical problems, write reports, work in small groups, exhibit projects, or confer with the instructor. Your support will be needed in the form of providing funds for the instructional materials and equipment requested and arranging for the necessary space and facilities.

Setting up such centers does not need to involve expensive remodeling or large-scale purchases of new equipment. Much of what is needed may already be available within the institution. With careful planning, staff might be able to reorganize and/or share existing resources.

Your institution will probably already have a central learning laboratory or library for use by all students. The vocational resource center could be located there and shared by all students. The advantage to this approach is that existing equipment, facilities, and staff can be used. The disadvantages are that (1) the instructor is not immediately available to students for direction and assistance, and (2) students are isolated from the laboratory area and, thus, cannot move freely back and forth between the study and skills areas. A useful compromise is to establish a resource center near a cluster of vocational laboratories, serving several programs.

A resource center located within the laboratory or in close proximity to it avoids these disadvantages. It enables each occupational program or department to gather, organize, and make easily accessible the instructional materials and media needed by students in that particular program or department. Decentralizing these facilities may, however, entail purchasing additional items such as audiovisual equipment, bookshelves, and study tables not presently available in each area. If a cluster

resource center is used, instructional aides may need to be added to the staff.

Conclusion

We have pointed out some major areas of administrative responsibility related to the continuing development and improvement of the instructional program. We have stressed that your fundamental role as an instructional leader will be to facilitate teachers' efforts to offer effective instruction by providing the encouragement, structure, guidelines, and resources they need to do so. The key to your ability to support, coordinate, and initiate instructional improvement is your own attitude toward these responsibilities. The degree of your interest in and awareness of instructional concerns will be apparent to staff, and they will model their own actions accordingly.

The following "Case Study" describes how one administrator, Ms. Thomas, guided staff in selecting and using a new instructional strategy. Read the case study and critique in writing the performance of the administrator described: What did she do right? What did she do wrong? What should she have done instead?

CASE STUDY

In skimming the latest issue of one of the vocational journals she read faithfully, Ms. Thomas, the new dean of occupational programs at Marlboro Community College, ran across an article on some recently developed instructional materials. The commercially developed materials were designed to assist instructors in several occupational areas to improve the reading skills of their students. They included teachers' manuals and sets of student workbooks that incorporated reading instruction, related to the occupational area, into the regular vocational curriculum.

Ms. Thomas recalled that these same materials had been the subject of discussion at a recent professional meeting she had attended. According to the director of the Marlboro Area Vocational-Technical Center (AVTC), one of his teachers had found the materials to be extremely useful.

Ms. Thomas was interested in seeing them for herself, because reading had always been a problem for many of the college's students. More and more of the students who were enrolling lacked sufficient reading skills to understand the textbooks and manuals in use. Ms. Thomas had firsthand knowledge of the problem, because she had taken over a few classes for instructors who were ill. Furthermore, one of the most common complaints at staff meetings was the difficulty instructors had in providing for the needs of students with a wide range of reading abilities.

Feeling that these new materials could be the solution, Ms. Thomas wrote to the publisher asking for an examination set. She also had the journal article photocopied and routed it to instructors in each occupational area and to each division chairperson. In addition, she placed her own marked copy of the journal in the Latest Developments section of the college's professional resource center.

When the examination set arrived, she looked it over and then placed it in the resource center. When, after several weeks, there was no response from anyone, she called a meeting

of the division chairpersons, described the new materials and their potential benefits, and asked them to draw up plans for installing the materials in at least one course in each of their divisions.

Compare your completed written critique of the "Case Study" with the "Model Critique" given below. Your response need not exactly duplicate the model response; however, you should have covered the same major points.

MODEL CRITIQUE

Ms. Thomas is clearly the type of administrator who takes her instructional leadership role seriously, focusing a good deal of her time and energy on the improvement of instruction. She reads professional journals to keep up to date and takes note of promising new strategies and materials. She attends professional meetings and confers with other administrators concerning approaches in use in other settings. She is concerned about the teaching/learning process; by getting out of her office and into the classroom, she has increased her understanding of students' needs and teachers' instructional concerns. Apparently, at least part of each staff meeting is devoted to issues related to the improvement of instruction; at the very least, teachers seem to feel free to voice their concerns.

Ms. Thomas was wise in attempting to close a recognized gap in the instructional program, and, up to a point, her actions in introducing the new materials showed positive leadership. By bringing the materials to the attention of several staff members and making them available in the resource center, she has indicated her interest in and support of teachers' efforts to explore new ways of increasing their effectiveness.

However, Ms. Thomas was much too hasty in deciding that these particular materials were the solution to the existing problem, and, just as critical, she made a unilateral decision without really involving faculty and other staff in the selection process.

In the first place, if reading has "always been a problem," what has been done in the past to address this need? Ms. Thomas should have initiated a review of the instructional program and existing practices first, before concluding that a completely new approach is called for. Do existing instructional plans address the need for dealing with a wide range of reading abilities among students? Have any other materials (e.g., audiovisual programs, programmed materials, etc.) been purchased to assist in this area? Are they being used? What has been the result? Are there some experienced instructors (academic as well as occupational) who have developed effective strategies and materials that could

be shared? If so, has there been any articulation between programs, divisions, etc.?

Since teachers are the ones most directly concerned with instruction and will be the ones expected to use any new strategies and materials selected, they should be heavily involved in reviewing existing practices. A committee of teachers and appropriate others (e.g., director of learning resource center and/or librarian, media specialists, advisory committee representatives) could be formed to investigate what related materials presently are available in the college, what materials are being used, and what seems to be needed.

If it is, in fact, determined that new strategies/materials are called for, this committee could form the nucleus of a textbook selection committee, which could then examine the new reading materials and other available resources, with the assistance of other experts as needed. Representatives of the publishers of these materials and other persons with expertise in this area (e.g., reading specialists) could be called in to assist the committee in its work. Furthermore, the evaluation process should be structured by some sort of standards. Ms. Thomas seems not to have used any particular criteria in reviewing the new reading materials. The committee should be provided with (or, even better, should be involved in formulating) specific criteria that any materials selected or developed should meet.

Ms. Thomas, also, seemingly ignored the fact that the materials were already in use in another setting and did not contact the AVTC director concerning them. Since only one teacher in that school seems to be using them, or using them successfully, they may not be appropriate to all programs or acceptable to every teacher. Ms. Thomas should encourage (and provide the means for) the selection committee to visit the other school. Members could then talk to teachers who have used and/or are using the materials and, if possible, observe the new approach in action. In addition to such a visit, the committee could check documents, such as RIVE and state publications, for descriptions of ongoing projects and recent innovations to see if these materials have been used in other settings and, if so, what the results have been.

If it is determined that an innovative strategy is called for and that the new materials should be tried, Ms. Thomas and other appropriate college administrators should consider organizing a pilot program. It would be unwise at the outset to make the kind of sweeping change Ms. Thomas seems to be planning. A good approach would be to select one or two instructors to participate who are interested in the approach and willing to try the materials, and to involve them in planning for its implementation. Ms. Thomas would need to ensure that these instructors

have the necessary training, materials, and assistance. Especially critical will be her continuing interest in and support of these teachers' efforts. She will need to monitor their progress, help solve problems that arise in the course of actually using the new approach and materials, and ensure that other faculty and staff are kept up to date on the progress and results of the pilot test. If this is done and the results are promising, other instructors may want to become involved, and a solid foundation will have been laid for the continuing improvement of instruction in this area.

Level of Performance: Your completed written critique should have covered the same major points as the "Model Critique." If you missed some points or have questions about any additional points you made, review the material in the information sheets," "Guiding the Development and Improvement of Instruction," pp. 9-45, and "Creating a Climate for Instructional Improvement," pp. 59-71, or check with your resource person if necessary.

You may wish to select an instructional strategy with which you are unfamiliar or that you would like to learn more about (e.g., competency-based education) and thoroughly research this approach and its implications for instructional improvement. This would include the following tasks:

- Reviewing the literature
- Locating and examining available materials
- Visiting classrooms or school settings in which the technique is being used
- Discussing the strategy with teachers, administrators, and consultants knowledgeable about its features and potential

Based on your research, you might want to draw up a plan for introducing this strategy in a school or community college setting. You could choose to locate peers who are also working on this module and complete this activity as a team.

You may wish to locate and meet with an experienced administrator to discuss ways in which he/she facilitates instructional improvement. During your visit, you may also be able to tour his/her facilities and examine the staff or student learning resource center (if these exist); observe a classroom/laboratory in which an innovative strategy is being piloted; attend a staff meeting in which instructional issues are being discussed, etc.

Learning Experience III

FINAL EXPERIENCE

While working in an actual administrative situation, guide the development and improvement of instruction.*

As part of your administrative responsibility, guide the development and improvement of instruction. This will include--

- coordinating the development of and approving courses of study; or facilitating the development of competency-based programs and materials
- guiding staff in selecting and using effective instructional strategies
- coordinating local demonstration, pilot, and exemplary programs
- facilitating and approving the selection of instructional materials and equipment
- organizing and maintaining a learning resource center for students

NOTE: Due to the nature of this experience, you will need to have access to an actual administrative situation over an extended period of time.

As you complete each of the above activities, document your activities (in writing, on tape, through a log) for assessment purposes.

continued

*If you are not currently working in an actual administrative situation, this learning experience may be deferred, with the approval of your resource person, until you have access to an actual administrative situation.

FINAL EXPERIENCE continued

Arrange to have your resource person review any products (e.g., instructional materials selection criteria; CBE learning packages) produced under your leadership and the documentation of your activities. If possible, arrange to have your resource person observe at least one instance in which you are working with staff to develop or improve instruction (e.g., a staff meeting devoted to an instructional problem; a visit to a classroom in which an innovation is being implemented, etc.).

Your total competency will be assessed by your resource person, using the "Administrator Performance Assessment Form," pp. 81-85.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in guiding the development and improvement of instruction.

Name _____

Date _____

ADMINISTRATOR PERFORMANCE ASSESSMENT FORM

Guide the Development and Improvement of Instruction

Directions: Indicate the level of the administrator's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
In guiding the development and improvement of instruction, the administrator:						
1. took steps to keep up to date concerning effective instructional strategies and materials, including:						
a. reading professional journals and other publications.....	☐	☐	☐	☐	☐	☐
b. joining and participating in professional organizations....	☐	☐	☐	☐	☐	☐
c. attending conferences, workshops, and presentations related to instructional issues.....	☐	☐	☐	☐	☐	☐
d. visiting other programs to observe promising techniques in use.....	☐	☐	☐	☐	☐	☐

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
2. facilitated the development and use of a staff learning resource center with adequate professional materials to aid faculty in instructional planning.....	☐	☐	☐	☐	☐	☐
3. if appropriate, encouraged the development and use of carefully planned courses of study, including:						
a. providing for the regular review and revision of courses of study.....	☐	☐	☐	☐	☐	☐
b. setting up curriculum development teams.....	☐	☐	☐	☐	☐	☐
c. providing the necessary resources and assistance.....	☐	☐	☐	☐	☐	☐
d. clarifying roles and responsibilities for course of study development.....	☐	☐	☐	☐	☐	☐
e. ensuring direct teacher involvement.....	☐	☐	☐	☐	☐	☐
f. providing guidelines for format and level of detail needed.....	☐	☐	☐	☐	☐	☐
g. providing information on available funds and facilities to ensure that plans are realistic.....	☐	☐	☐	☐	☐	☐
4. if appropriate, facilitated the competency-based approach to instruction, including:						
a. ensuring that competencies to be achieved are identified, verified, and made public.....	☐	☐	☐	☐	☐	☐

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
b. providing funds for the development/purchase of competency-based materials, supportive media and materials, and facilities and equipment.....	☐	☐	☐	☐	☐	☐
c. supporting or initiating scheduling and grading processes consistent with the competency-based approach.....	☐	☐	☐	☐	☐	☐
d. arranging for any needed staff training in module development.....	☐	☐	☐	☐	☐	☐
e. providing/arranging for staff orientation to competency-based concepts and procedures.	☐	☐	☐	☐	☐	☐
5. guided staff in selecting and using effective instructional strategies, including:						
a. alerting staff to promising new developments.....	☐	☐	☐	☐	☐	☐
b. ensuring that staff meetings include adequate time for dealing with the improvement of instruction.....	☐	☐	☐	☐	☐	☐
c. arranging for teachers to visit outstanding programs in the school and in other settings.....	☐	☐	☐	☐	☐	☐
d. providing access to consultants, specialists, community resources, etc.....	☐	☐	☐	☐	☐	☐
e. encouraging research and experimentation.....	☐	☐	☐	☐	☐	☐

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
f. responding quickly and flexibly to requests for instructional assistance.....	☐	☐	☐	☐	☐	☐
6. coordinated local demonstration, pilot, and exemplary programs, including:						
a. selecting projects that have potential for making a positive difference in student learning.....	☐	☐	☐	☐	☐	☐
b. structuring installation and evaluation procedures and monitoring progress.....	☐	☐	☐	☐	☐	☐
c. providing teachers with adequate instructional materials and supplies.....	☐	☐	☐	☐	☐	☐
d. involving teachers and other appropriate staff in the decision-making process.....	☐	☐	☐	☐	☐	☐
e. providing for any necessary inservice training.....	☐	☐	☐	☐	☐	☐
f. developing and submitting reports to sponsors and disseminating project results to interested parties inside and outside the school.....	☐	☐	☐	☐	☐	☐
7. facilitated and approved the selection of instructional materials and equipment, including:						
a. setting up materials and equipment selection committees.....	☐	☐	☐	☐	☐	☐
b. providing adequate time, space, and resources for the committees to do their work...	☐	☐	☐	☐	☐	☐

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
c. assisting in the development of appropriate selection policies and criteria.....	☐	☐	☐	☐	☐	☐
d. providing for discussions with commercial sales agents, media specialists, and other knowledgeable persons.....	☐	☐	☐	☐	☐	☐
e. providing realistic information concerning the available budget for such items.....	☐	☐	☐	☐	☐	☐
f. ensuring that all materials and equipment recommendations are processed through the proper channels.....	☐	☐	☐	☐	☐	☐
8. facilitated the development and maintenance of a student learning resource center(s) with adequate resources to support students' learning activities.....	☐	☐	☐	☐	☐	☐

Level of Performance: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the administrator and resource person should meet to determine what additional activities the administrator needs to complete in order to reach competency in the weak area(s).

ADDITIONAL RECOMMENDED REFERENCES

American Institutes for Research. VECS Module 11: Introducing and Maintaining Innovation. Palo Alto, CA: American Institutes for Research, 1976.

Center for Vocational Education, The. Professional Teacher Education Module Series. Athens, GA: American Association for Vocational Instructional Materials, 1978. (A set of 100 competency-based learning packages for the professional preparation of vocational teachers)

Dull, Lloyd W. (ed. and comp.) Supervision in Vocational Education. Columbus, OH: Ohio Department of Education, Division of Vocational Education, 1978.

Dull, Lloyd W. (ed. and comp.) Leadership for Improved Learning. The Heart of Instruction Series, no. 13. Columbus, OH: Ohio Department of Education, Division of Vocational Education, 1977.

Ramp, Wayne S., and Parker, James C. Occupational Education Leadership: A Performance-Based Approach. Springfield, IL: Illinois Office of Education, Department of Adult, Vocational, and Technical Education, 1978.

Shoemaker, Byrl R. An Instructional System Design for Vocational Education. Columbus, OH: The Ohio State University, Instructional Materials Laboratory, Division of Vocational Education, 1976.

Wood, Merle. Developing Your Own Instructional Units. Professional Development Series, no. 4. Arlington, VA: American Vocational Assocation, 1980.

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Additional modules are being developed through the Consortium for the Development of Professional Materials for Vocational Education. The Consortium is supported by the following member states: Florida, Illinois, Ohio, New York, North Carolina, and Pennsylvania.

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LT 58A	Guide to Using Competency-Based Vocational Education Administrator Materials
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Program Information Office
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